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Thesis

THE FUNCTIONING OF THE HEALTH OBJECTIVE IN
THE SECONDARY SCHOOLS OF MASSACHUSETTS

Submitted by

Helen B. Kitchin

(B.S. in Ed., Boston University, 1929)

In partial fulfillment of requirements for
the degree of Master of Education

1934

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Thesis

THE EFFECTS OF THE BOSTON UNIVERSITY
SCHOOL OF EDUCATION ON THE
TEACHING OF MATHEMATICS

Submitted by

James H. Thompson

(B.S. in Education, Boston University, 1951)

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OUTLINE OF THE THESIS

Chapter I.	INTRODUCTION.....p.	1
A.	Purpose of the Study.....p.	1
B.	What the Schools need in Health Education.....p.	2
C.	Brief History of the Health Education Movement.....p.	5
Chapter II.	REASONS FOR HEALTH EDUCATION IN THE SCHOOLS.....p.	13
A.	Definition of Health.....p.	13
B.	The Functions of the Schools....p.	13
	In Health Education	
C.	Reasons for Health Education....p.	14
Chapter III.	SCHOOL HYGIENE LAWS OF THE STATE OF MASSACHUSETTS.....p.	17
A.	Health Instruction.....p.	17
B.	School Physicians and Nurses....p.	20
C.	School Lunches.....p.	24
D.	Vaccination.....p.	27
E.	Ventilation and Sanitation.....p.	30
Chapter IV.	HEALTH WORK IN THE ELEMENTARY AND JUNIOR HIGH SCHOOLS.....p.	34
A.	The Source of Information.....p.	34
B.	Classification of Schools.....p.	34
C.	The Administration and its Relation to School Health Work.p.	35
D.	School Physicians.....p.	38
E.	School Nurses.....p.	53
F.	Health Education.....p.	64
G.	The Health of the Teachers.....p.	66
Chapter V.	HEALTH WORK IN THE SENIOR HIGH SCHOOLS.....p.	69
A.	The High School Questionnaire...p.	69
B.	Examination of Pupils.....p.	70
C.	School Nurses.....p.	74
D.	Physical Education Classes.....p.	79
E.	Hygiene Courses.....p.	81
F.	Health Instruction in connection with Other Courses.....p.	90

OUTLINE OF THE THESIS

Chapter I.	INTRODUCTION.....p. 1
A.	Purpose of the Study.....p. 1
B.	What the Schools Need in Health Education.....p. 3
C.	Brief History of the Health Education Movement.....p. 5
Chapter II.	REASONS FOR HEALTH EDUCATION IN THE SCHOOLS.....p. 13
A.	Definition of Health Education.....p. 13
B.	The Functions of the Schools in Health Education.....p. 13
C.	Reasons for Health Education.....p. 14
Chapter III.	SCHOOL HYGIENE LAWS OF THE STATE OF MASSACHUSETTS.....p. 17
A.	Health Instruction.....p. 17
B.	School Physicians and Nurses.....p. 20
C.	School Lunches.....p. 24
D.	Vaccination.....p. 27
E.	Ventilation and Sanitation.....p. 30
Chapter IV.	HEALTH WORK IN THE ELEMENTARY AND JUNIOR HIGH SCHOOLS.....p. 34
A.	The Source of Information.....p. 34
B.	Classification of Schools.....p. 34
C.	The Administration and its Relation to School Health Work.....p. 35
D.	School Physicians.....p. 38
E.	School Nurses.....p. 38
F.	Health Education.....p. 44
G.	The Health of the Teachers.....p. 48
Chapter V.	HEALTH WORK IN THE SENIOR HIGH SCHOOLS.....p. 63
A.	The High School Questionnaire.....p. 63
B.	Examination of Pupils.....p. 70
C.	School Nurses.....p. 74
D.	Physical Education Classes.....p. 79
E.	Hygiene Courses.....p. 81
F.	Health Instruction in connection with Other Courses.....p. 80

Chapter VI.	A SUGGESTED HEALTH PROGRAM FOR THE SENIOR HIGH SCHOOLS.....p.	97
A.	What this Program should include.p.	97
	1. Health Services.....p.	98
	2. Direct and Indirect Health Teaching.....p.	100
	3. The Health Counselor.....p.	103
	4. The Health Councils.....p.	106
Chapter VII.	SUMMARY OF THESIS.....p.	109
Bibliography.....p.		119

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This particular study is an outgrowth of an interest
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1. Cardinal Principles of Secondary Education - Depart-
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Chapter VI. A SUGGESTED HEALTH PROGRAM FOR	
THE SENIOR HIGH SCHOOLS.....	p. 97
A. What this Program should include.....	p. 97
1. Health Services.....	p. 98
2. Direct and Indirect Health	
Teaching.....	p. 100
3. The Health Counselor.....	p. 103
4. The Health Committee.....	p. 106
Chapter VII. SUMMARY OF THESIS.....	p. 109
Bibliography.....	p. 112

Chapter I.

INTRODUCTION

Purpose of the study. According to the Cardinal Principles of Education,¹ health is the first objective of education. Some schools have been doing phases of health work since 1755. At the close of the world war, however, the modern program of health education in schools had yet to be developed. This newer program of health education is not a passing fad, and although it has been eliminated in some places, because of the depression, it is significant for the future of this movement, that, with a few exceptions, all civilized countries have adopted it almost simultaneously, and its universal development is practically assured.

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Chapter I.

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This particular study is an outgrowth of an interest which developed during six years supervisory work in health education. The author began the health work in the junior and senior high schools of a large town in the western part of the state and out of this particular place of work grew an especial interest in secondary school health work.

Much has been written about school health work, but very little about the actual health work done in the secondary schools. Consequently, the major purpose of this paper is to find out what health work is really being done in the secondary schools, and because of a limited amount of time, the study has been confined to the state of Massachusetts. The minor purpose is to make out a program for secondary school health work that possibly could be used as a means in making healthier, happier, more successful young men and women.

What the schools need in health education. In delving into the records of the schools of Massachusetts one finds that the health programs of the elementary schools have been growing very fast, but that the secondary schools have been very slow in adopting any kind of a health program. A program of athletics may possibly be an exception as this is quite a general procedure, especially in the senior high schools.

Dr. Keene has very ably stated what the essence of our school health program should be: "What our schools need generally is a unified program for education in health work that shall alike include protection, correction, and prevention. This calls not only for the protection of the children from contagious diseases, but likewise from

Keene, Dr. Charles H., "The Physical Welfare of the School Child" - Editorial Introduction, page VI.

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the teacher who is poorly trained and ignorant in health matters, for the correction not only of those physical defects which endanger future progress, but also of all the misinformation and lack of knowledge on the part of the home and community which today so seriously interferes with proper child care; and for the prevention of later disorders by the building of a strong physique through properly selected physical activities, given through a hygienic school program in a sanitary school plant.

All this calls for scientific health supervision; properly directed physical activities and health training and instruction - the school physician, school dentist, school nurses, special class teachers, directors of physical education, the school authorities and the classroom teachers, - all uniting to carry through a unified health and physical development program."¹

Why haven't we such a health program in our secondary schools? It seems to me that one reason is that the majority of the health programs like the well known Topsy "just grew". The different health activities have come into the school program one at a time and at widely separated intervals; because of the interest of a particular indivi-

1. Keene, Dr. Charles H., "The Physical Welfare of the School Child" - Editorial Introduction, page VI.

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dual or group of individuals in certain phases of the health work, or because of circumstances which directed the attention of the parents and the school authorities to particular health needs in their particular schools. Another reason that we have no unified health program in our secondary schools is that the administrators of these same schools have been loath to let a subject enter the doors of these sacred institutions unless it was a tradition handed down from generation to generation, or something which could be taught so that a college board could make out a factual examination for it. Health seemed to be very far removed from either of these.

However, health activities have crept into the school programs slowly but surely and they have come to stay. Let us go back and see how they have become a part of these programs. Physical education has been a part of the work in our schools in this country since 1755. Physiology and hygiene, as organized studies have been going on since about 1854.¹

1. Keene, Dr. Charles H., "A Program for School Health", The Public Health Nurse, Vol. XXII No. 9, Sept. 1930, p. 444.

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1. Keene, Dr. Charles H., "A Program for School Health", The Public Health Nurse, Vol. XXII No. 9, Sept. 1930, p. 444.

Brief History of the Health Education Movement.

In 1833 the French government made the school authorities responsible for the sanitation of their school plants and in 1842 this same government required that the school physicians inspect all public schools, regularly.¹

In 1868-1873 physicians were placed on the staffs in the schools of Sweden (1865), Germany (1869), Russia (1873), and Austria (1873). By 1898 in the United States, Boston, Chicago, New York, and Philadelphia had inaugurated systems of medical inspection. About 90 cities followed their example by 1907, about 337 by 1910 and nearly 500 by 1913.²

Germany's first school doctor was appointed in 1883, at Frankfort-on-the-Main. By 1905 100 cities had a total of 598 school doctors and by 1908 the number had risen to over 400 cities and 1500 doctors.³

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1. Turner, C. E., Principles of Health Education - D. C. Heath & Co., Page 14
 2. Hoag, Dr. E. B. & Terman, L. M., Health Work in the Schools - Houghton Mifflin Co., - p. 41
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In 1874 Brussels, Belgium, developed the first medical inspection system which consisted of the tri-monthly inspections of all schools.¹

Nearly every state in the United States had passed a law requiring instruction concerning the effectiveness of alcohol and narcotics by 1880, and in forty of these states the subjects were to be a part of the broader program of instruction in physiology and hygiene.²

'In 1887 the Boston School Committee took over two school kitchens which had been established privately in 1885 for experimental teaching".³

"School nursing had its beginning in England in 1894. Amy Hughes, a district nurse, was asked to visit in the Drury Lane school in London which was attended by poor children, to help to relieve their ills, and in 1898 a voluntary "School Nurses' Society" was founded with the

1. State Wide Trends in School Hygiene and Physical Ed., Prin. No. 5 - Office of Ed. - May 1930.

2. Hunt, Caroline L., The Life of Ellen Richards, p. 191 Whit. & Barrows 1912.

3. Chayer, M. E., School Nursing - G. Putnam & Son's 1931 p. 15

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In 1904, when the work of the London School Board was taken over by the London County Council, and reorganized, the number of school nurses was increased to 12 and still later to 50.

The first law requiring teachers in public schools to test the eyesight of the children was passed in 1899 by the state of Connecticut. In the same year the organized Home Economics movement started at the Lake Placid Conference of Home Economics, and Ellen H. Richards assisted in outlining the household science questions which

1. Opp. cit. 2, p. 5 -- Pages 295 and 299

2. Opp. cit., 1, p. 5 -- Page 17

1. Opp. cit. 2, p. 5 - [11] - Page 17.

2. The Present Status of Health Education. Report of Com. on Health Problems to Bd. of the Am. Public Health Assn. - Am. Journal of Public Health - Oct. 1924, p. 839.

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In 1899 North Dakota was the first state to pass a law making physical education a required subject in all common schools.

In 1902 as the result of a report handed in by Lillian Wald (a visiting nurse of the east side, New York City) twenty-five nurses were appointed in New York City. In this same year the Strasburg Dental Clinic was opened in Strasburg, Germany. It is supported at public expense and is open without charge to the school children of the city, rich and poor.

In 1903 the first school dentist was appointed in Reading, Pennsylvania and in this same year a department of Physical Education was established in New York City.²

In 1904 eye, ear and throat examinations were made compulsory in the state of Vermont.

By 1905 the New York City schools were examining each child for physical defects. In 1915 Sweden provided for the appointment and remuneration by the Government of at least one medical officer for each secondary school.

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1. Opp. cit. p. 5 - (1), - Page 17.

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"The Cambridge Dental Institution for children, one of the best known of England's school clinics was organized in 1907 at private expense, and was taken over after two years by the Borough Council."²

"New York City established the first school lunch in the year 1910, but in 1909 Boston school lunches were served in the elementary schools by private societies. Later these were taken over by the school authorities.

In 1914 the dental hygienists were introduced into the schools of Hartford, Connecticut by Dr. Alfred Fons who is considered the father of this movement.

Dental Clinics have been established in the United States in New York, Chicago, Philadelphia, Cleveland, Los Angeles and in nearly all of the other large cities.³

"A recent ministerial decree in Turkey provides, evidently for the first time in that country, medical service in the secondary schools, which are attended by children

1. Opp. cit. p. 5, (2), - Page 187

2. Opp. cit. p. 5, (1), - Page 22

3. Am. Journal of Public Health - Sept. 1931, Vol. XXI No. 9

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1. Opp. cit. p. 5, (2), - Page 187

2. Opp. cit. p. 5, (1), - Page 82

3. Am. Journal of Public Health - Sept. 1931, Vol. XXI No. 9

mostly between 13 and 16 years of age. Each pupil must be examined at the beginning of the school year, at least once more during the year, and a detailed report about each must be sent to the school principal. The examining physician is expected to decide whether the pupil is able to follow his studies without physical or mental harm. A health record is to be kept for every pupil. Pupils with certain defects are to be put in special registers and to be kept under observation. The school physician is also required to watch the sanitary conditions in and around the school building and to give to the school children frequent lectures on hygiene." ¹

When, however, in 1920 the war draft figures were published, they gave a picture of our complacency. They showed that about 70 per cent of all the men of draft age were physically below normal. At the other end of the line we were told that 80 per cent of our children were born perfect. This means that in this country of ours, with its comparative freedom from poverty, its ample space, abundant food supply and general excellence of climate; where, if anywhere in the world, children should have a right to health, somewhere between birth and maturity were accumulating conditions which robbed the youth of

1. Opp. cit. p. 5, (2) - Page 1

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this nation of their full heritage of health and happiness. The war made us face the fact that many of our young men were not physically fit. These men were physically uneducated, they were physical illiterates. This appalling fact brought educators to their feet. They realized that we must have preventive hygiene as well as preventive medicine and preventive sanitation. Physiology and hygiene as organized studies, have been taught for eighty years or more but this is not enough to promote good health. We must develop good health habits as well as give them scientific facts about the human body.

In the United States, in several of the larger cities, experimental health education programs were started about 1919. The programs were introduced into the elementary schools and rightly so as this is where the foundation of health is developed.

The training of teachers for the teaching of health is a very recent development, and the health of teachers has received consideration only in the last ten years. The relation of the health of the child to the arrangement of the school program is considered by only a very few schools even today.

With this group of activities, a sporadic growth rather than a development, it is not strange that little correlation is exhibited among the different health factors,

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and with the exception of a few of our large cities and a very few of our small cities, these activities are separated into parts which do not dovetail or work together.

Definition of Health. Health is that condition of body and mind in which sufficient energy is available for the performance of a full day's work and a full day's play - and that abundantly, without friction and without depletion. It guarantees us the energy and strength required for the daily task. It supplies the inclination and the energy to play. It lays the foundation for the largest human service. It makes for efficiency in our work. In a large way it conditions our happiness and it is our indispensable condition of personal attractiveness, charm and vitality.¹

The functions of the school in health education. The first function of the public schools in the field of health is protection, the sanitation of the buildings, and the control of communicable diseases.

The second function of the public schools in the field of health is the correction of defects, which includes the examination of students, the reporting of defects by the school nurse, the establishment of free clinics and of special classes such, as lip reading, sight conversation and open air classes.

1. Rubland, Geo. C., M.D., Health Demonstrations, *Am. Journal of Public Health* - Vol. XIX No. 3, Mar. 1929 p. 328

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Chapter II.

REASONS FOR HEALTH EDUCATION IN THE SCHOOLS

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1. Ruhland, Geo. C., M.D., Health Demonstrations, Am. Journal of Public Health - Vo. XIX No. 3, Mar. 1929 p. 288

Chapter II.

REASONS FOR HEALTH EDUCATION IN THE SCHOOLS

Definition of Health. Health is that condition of body and mind in which sufficient energy is available for the performance of a full day's work and a full day's play - and that abundantly, without friction and without depletion. It guarantees us the energy and strength required for the daily task. It supplies the inclination and the energy to play. It lays the foundation for the largest human service. It makes for efficiency in our work. In a large way it conditions our happiness and it is our indispensable condition of personal attractiveness, charm

and vitality.

The functions of the school in health education. The

first function of the public schools in the field of health is protection, the sanitation of the buildings, and the control of communicable diseases. The second function of the public schools in the field of health is the correction of defects, which includes the examination of students, the reporting of defects by the school nurse, the establishment of free clinics and of special classes such as lip reading, sight conversation and open air classes.

The third function of the public schools in the field of health is health promotion: the hygienic arrangement of the school program, the physical education program, and the health education program.

We do need a health program in our public schools and it should not end in the elementary schools, but should go on through the secondary schools in a logical manner and should be based on the actual needs of the junior and senior high school groups. The effects of a wisely planned, constructive program of health education, will be apparent, but should be felt even more strongly in the second, third and the fourth generations.

Reasons for health education. "The reasons for health education in all the schools are obvious: They are -

1. The child born today may expect to live longer than the child born a century ago. There is every reason to believe that the child of tomorrow may expect to live longer than the child of today provided we direct our efforts to that end.

2. The death rate today is strikingly lower than it was two decades ago. It has not yet reached its lowest limits, but farther reduction depends largely upon education and personal as well as official interest in health.

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2. The death rate today is strikingly lower than it was two decades ago. It has not yet reached its lowest limits, but further reduction depends largely upon education and personal as well as official interest in health.

3. Approximately one-fourth of the deaths in the U. S. are reported as the result of communicable diseases. Theoretically, communicable diseases are entirely preventable, but it is well established that their prevention depends in great part on the cooperation of the educated public; e.g., in typhoid fever, small pox, tuberculosis etc.

4. Other important illnesses which shorten life are the violation of the laws of health. These are preventable, provided the education of the individual has been such as to enable him to place his habitual regime of living in accordance with the laws of health.

5. The death rate of young babies has been greatly reduced, but the infant death rate is still larger than that of any other age. Education in the care of babies, before and after birth is necessary in order to reduce this waste of life. A certain amount of this education has its proper place in the schools.

6. Education in accident prevention has been proved an effective means of reducing that entirely unnecessary loss of life, which occurs every year from preventable accidents.

7. Extension of life, constructive health building, cannot be accomplished without education of the masses of people, and it can be fairly said that the knowledge of

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facts and understanding of principles which the school is in the best position to provide are indispensable for the maintenance of health and the prevention of diseases.

8. Our present health practices are poor. The adaptation of the human species to factory and office life is a real biological problem. This machine age is very new in fact. Factories are only about one hundred and fifty years old and there is no such thing as a protective instinct that safeguards animals or humans in new situations.

9. Habits do affect health. Good examples of this theory are Theodore Roosevelt and Annette Kellerman.

10. The public school can improve the habits of the child. "The school is to the child the source of authority. He accepts the advice of the teacher, but he is influenced, perhaps even more by the opinion of the children in his group."¹

11. "It seems unwise to curtail the work in health at a time when greater numbers of children have greater need for it than during the less trying times. If health deserves the uppermost rank in the cardinal principles of secondary education, then it is not illogical to expect that it will be among the last of the school's activities to suffer curtailment."²

1. Health Education-A Program for Public Schools and Teacher Training Institutions--Report of the Joint Committee on Health Problems in Education 1924.

2. Brammell, Roy, - Health Work and Physical Ed., Bulletin 1932, No. 17, Monograph No. 28, p. 63.

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Chapter III.

SCHOOL HYGIENE LAWS OF THE STATE OF MASSACHUSETTS.

School hygiene laws of the state of Massachusetts. With compulsory education laws came the responsibility to school officials to safeguard and improve the health of the children to the end that they would be able to receive full advantage of all educational opportunities. With the safeguarding and improving of the health of the children came school hygiene laws which have been adopted in a helter skelter fashion; because of the enthusiasms of a nurse, or the untiring efforts of a physician, or the persistence of a health department; and these in a fashion have helped to mold the health procedures of our schools.

The school hygiene laws of Massachusetts are few in number, and are therefore not much help in the formation of an all round school health program. However, they constitute the only health activities in many of our schools and are the basis for a number of the better health programs, so we would do well to acquaint ourselves with these august documents.

Health Instruction.

Chapter 71, General Laws

Section 1. (As amended by chapter 222, Acts of 1923.) "Every town shall maintain, for at least

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Health Instruction.

Chapter VI, General Laws

Section 1. (As amended by chapter 323, Acts of 1923.) "Every town shall maintain, for at least

one hundred and sixty days in each school year unless specifically exempted as to any one year by the department of education, in this chapter called the department, a sufficient number of schools for the instruction of all children who may legally attend a public school therein. Such schools shall be taught by teachers of competent ability and good morals, and shall give instruction and training in orthography, reading, writing, the English language and grammar, geography, arithmetic, drawing, the history and constitution of the United States, the duties of citizenship, physiology and hygiene, good behavior, indoor and outdoor games and athletic exercise. In connection with physiology and hygiene, instruction as to the effects of alcoholic drinks and of stimulants and narcotics on the human system, and as to tuberculosis and its prevention, shall be given to all pupils in all schools under public control, except schools maintained solely for instruction in particular branches. Such other subjects as the school committee considers expedient may be taught in the public schools."

In this law the thought, as far as health is concerned, is health instruction in the schools, in the form of factual teaching of physiology and hygiene.

Our forefathers believed that if we gave instruction in "physiology and hygiene, and with this, instruction as to the effects of alcoholic drinks and of stimulants and narcotics on the human system," that there would be great reforms in the health conduct of the people so informed. As this was one of the first statutes adopted in Massachusetts, we have learned from experience that knowledge of the human body and of the

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effects of alcohol probably does not change the mode of living, nor lessen the amount of alcohol consumed by the general public. We know that conduct counts and therefore we must give information as a foundation on which good health habits may be safely built, but not factual information as an end in itself.

F. W. Kirkman says, "The effectiveness of health programs is still measured largely by the verbal knowledge of the child rather than by his health habits and his physical and mental fitness."¹ We know that this condition should be a thing of the past. Later we shall discover that some school systems have relegated it to the archives, even in the secondary schools, but in many schools of our state it is still true.

The teaching of indoor and outdoor games and athletics comes under the physical education program in this state. Athletic programs of some type are practically universal in our secondary schools. The physical education programs were started in the high school and then extended down to the elementary schools. The health education programs, on the other hand, started in the elementary schools and they are just beginning to enter the senior high schools. The

1. Kirkman, Francis W., "Health the First Objective" Journal of Nat. Ed. Asso., Apr. 1930, p. 120

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Mr. Brammell says of the country as a whole "In general, the small schools and the four year high schools have made the least progress in developing effective programs of health and physical education,"¹ Is this true in Massachusetts? Later we shall find out.

School Physicians and Nurses.

School Physicians

Section 53. (As amended by section 1, chapter 357, Acts of 1921.) "The school committee shall appoint one or more school physicians and nurses, shall assign them to the public schools within its jurisdiction, shall provide them with all proper facilities for the performance of their duties and shall assign one or more physicians to the examination of children who apply for health certificates required by section eighty-seven of chapter one hundred and forty-nine, but in cities where the medical inspection hereinafter prescribed is substantially provided by the board of health, said board shall appoint and assign the school physicians and nurses. The department may exempt towns having a valuation of less than one million dollars from so much of this section as relates to school nurses."

District may employ school Physicians and Nurses

Section 53A. (Added by section 2, chapter 357, Acts of 1921). "A superintendency district formed and conducted under the provisions of

1. Opp. cit. 2, p. 16, Nat. Survey of Secondary Education, p. 97

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District may employ school physicians and nurses

Section 53A. (Added by section 2, chapter 357, Acts of 1921.) "A superintendent district formed and conducted under the provisions of

section sixty, or a superintendency union formed and conducted under the provisions of sections sixty-one to sixty-four, inclusive, may employ one or more school physicians and may employ one or more school nurses; determine the relative amount of service to be rendered by each in each town; fix the compensation of each person so employed; apportion the payment thereof among the several towns; and certify the respective shares to the several town treasurers. A school physician or nurse so employed may be removed by a two thirds vote of the full membership of the joint committee."

Certain Towns exempt.

Section 53B. (Added by section 2, chapter 357, Acts of 1921). "The towns comprised in a superintendency district or union employing, to the satisfaction of the department, one or more school physicians and nurses in accordance with the provisions of section fifty-three A shall be exempt from the provisions of section fifty-three requiring the appointment of such persons."

Physical Examination of Pupils, Teachers and Janitors.

Section 54. "Every school physician shall make a prompt examination and diagnosis of all children referred to him as hereinafter provided and such further examination of teachers, janitors and school building as in his opinion the protection of the health of the pupils may require. Every such physician who is assigned to perform the duty of examining children who apply for health certificates shall make a prompt examination of every child who wishes to obtain an employment certificate, as provided in section eighty-seven of chapter one hundred and forty-nine, and who presents to said physician the pledge or promise of the employer, as provided in said section; and the physician shall certify in writing whether or not in his opinion such child is in sufficiently sound health and physically able to perform the work described in said pledge or promise."

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Examination of Certain Pupils.

Section 55. (As amended by chapter of 120, Acts of 1922.) "The school committee shall cause to be referred to a school physician for examination and diagnosis every child returning to school without a certificate from the board of health after absence on account of illness from infectious or contagious disease. Every child attending school who shows signs of ill health or of suffering from infectious or contagious disease shall be referred to a school physician, unless at once excluded from the school by the teacher. But in the case of schools remotely situated, the committee may make such other arrangements as may best accomplish the purpose of this section."

Parent or Guardian to be notified of Disease, etc.

Section 56. "The committee shall cause the parent or guardian to be notified of any disease or defect from which any child is found to be suffering, or of any defect or disability requiring treatment, ascertained under the following section. A child showing symptoms of smallpox, scarlet fever, measles, chicken pox, tuberculosis, diphtheria or influenza, tonsillitis, whooping cough, mumps, scabies or trachoma, shall be sent home immediately, or as soon as safe and proper conveyance can be found; and the board of health shall at once be notified."

Treating as to Defective Sight, etc.

Section 57. "The committee shall cause every child in the public schools to be separately and carefully tested and examined at least once in every school year to ascertain defects in sight or hearing, and other physical defects tending to prevent his receiving the full benefit of his school work, or requiring a modification of the same in order to prevent injury to the child or to secure the best educational results, and shall require a physical record of each child to be kept in such form as the department may prescribe. The tests of sight and hearing shall be made by the teachers, directions for which shall be prescribed by the department of public health."

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Department to furnish Test Cards,
Blanks, etc.

Section 58. (Amended by section 71, Chapter 426, Acts of 1931). "The department, after consultation with the department of public health, shall prescribe and furnish to school committees suitable rules of instruction, test cards, blanks, record books and other useful appliances for accomplishing the purposes of sections fifty-three to fifty-seven, and may annually expend therefore a sum not exceeding eight hundred dollars, and shall provide for pupils in the normal schools instruction and practice in the best methods of testing the sight and hearing of children."

These laws give the schools of Massachusetts doctors and nurses who belong to the school health service.

They also emphasize the examination of children after an absence because of a communicable disease, the examination of children applying for a work certificate and the examination of teachers, janitors and school buildings, as in the doctor's opinion the protection of the health of the pupils may require.

This gives the local school administrators of Massachusetts a great deal of freedom in setting up regulations in their schools in regard to examination of pupils and teachers and also in all other activities of the doctors and nurses. And in many towns and cities this is in evidence because of the lack of such procedures especially in the secondary schools.

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Sections 57 and 58 dealing with the examination of the eyes and ears of the students by the teachers is carried out almost universally. The records of these examinations must be sent into the state house to the department of public health at a regular stated time. Therefore school administrators are particularly careful in living up to this requirement of their state department of health.

Schoolhouses.

School lunches.

Sale of Lunches to Pupils and Teachers.

Section 72. "The school committee may prepare and sell lunches at one or more school buildings for the pupils and teachers of the public schools at such prices as it deems reasonable."

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Most of the junior and senior high schools in the larger cities of this state prepare and sell lunches to the pupils and teachers. The reason for this is that the school programs are so arranged that the teachers and students do not have time to leave the building for lunch.

From the health standpoint this law is very inadequate. The lunch period is especially adapted for health teaching as we have the pupils not only learning what constitutes a well balanced meal, but actually developing good food habits every time they participate in a healthful school lunch.

In the Commonwealth on "School Hygiene" is the paragraph - "The School Lunch - Massachusetts is providing hot lunch for its pupils in 58% of its cities and towns. This is an increase of 20% within the last year. In schools where all the children go home at noon, no provision need be made for the lunch. Wherever the children must remain for the noon meal, there should be facilities for the preparation of a hot food.

Certain points should be remembered where the school undertakes a lunch plan. Equipment may be very simple and inexpensive. Enthusiasm and interest of the school authorities is a requisite. The cooperation of the community is a big factor in the success of the lunch room.

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The food served should add to the optimum diet of the child. The whole project should be a part of the nutrition and health education program of the school. Instruction as to the proper lunch to carry from home is included in the health teaching. The person in charge should have a knowledge of foods and an interest in children. The question of selling candy raises a great deal of discussion. It is never legitimate to foster the sale of this product to raise money for trips or equipment. Money may be raised in other ways.

Make your school lunch part of your educational system."¹

This is a large order but there is nothing written in our laws to help in carrying out this order. In some of our schools even today the lunch period is only fifteen or twenty minutes long which gives the participants about time enough to select their lunch and "bolt" it down without thought as to the digestion of the food consumed in such a rush.

Some of our schools are still serving what they feel the students want or are competing with other lunch rooms. In such lunch rooms a student may choose a "hot dog", a cup of coffee and a bar of candy. Surely, not the type of lunch for him if he is to develop good health habits in regard to the choosing of food or hardly the

1. The Commonwealth, vol.16, No.2, Apr.-May-June 1929 p.59

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lunch for him if he wishes to do adequate work in the afternoon. However, it is well we have some regulation in regard to the serving of school lunches as it may lead to more and better laws in the future.

Vaccination.

Chapter 76, General Laws.

School Attendance.

Vaccination.

Section 15. "An unvaccinated child shall not be admitted to a public school except upon presentation of a certificate like the physician's certificate required by section one hundred and eighty-three of chapter one hundred and eleven. A child from a household where a person is ill with smallpox, diphtheria, scarlet fever, measles, or any other infectious or contagious disease, or from a household exposed to contagion from any such disease in another household, shall not attend any public school during such illness or exposure until the teacher of the school has been furnished with a certificate from the local board of health, or from the attending physician, stating that danger of conveying such disease by such child has passed."

R. L. 44, 6 (as amended by 1906, 371, and by 1907, 215) does not give an unvaccinated child presenting a certificate that he is not a fit subject for vaccination an absolute right to attend school at all times. A regulation made during a time when smallpox was prevalent 'to exclude from attendance all unvaccinated children and also all children who do not present a certificate or revaccination as required by the board of health, until such time as this (school) committee may become satisfied that the imminent danger from contagion of smallpox in our town has ceased,' is a reasonable one. *Hammond v. Hyde Park*, 195 Mass. 29.

lunch for him if he wishes to do adequate work in the afternoon. However, it is well we have some regulation in regard to the serving of school lunches as it may lead to more and better laws in the future.

Vaccination.

Chapter 78, General Laws.

School Attendance.

Vaccination.

Section 15. "An unvaccinated child shall not be admitted to a public school except upon presentation of a certificate like the physician's certificate required by section one hundred and eighty-three of chapter one hundred and eleven. A child from a household where a person is ill with smallpox, diphtheria, scarlet fever, measles, or any other infectious or contagious disease, or from a household exposed to contagion from any such disease in another household, shall not attend any public school during such illness or exposure until the teacher of the school has been furnished with a certificate from the local board of health, or from the attending physician, stating that danger of conveying such disease by such child has passed."

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The exemption under G. L., c. 76, 15, and c. 111, 183, upon the presentation of the certificate therein described, of a child of schoolage from vaccination before being admitted to the public schools does not cover the entire period of the child's attendance after the filing of the certificate; the certificate is limited to the period during which his physical condition is such that in the opinion of the certifying physician he is an unfit subject for vaccination. *Spofford v. Carleton*, 238, Mass. 528.

It has been further held that a regulation of the school committee requiring a renewal of such a certificate every two months, but providing that a pupil failing to renew such certificate should not be excluded from school until a period of two weeks had elapsed after failure to renew, conformed with the law and was valid. *Spofford v. Carleton*, 238, Mass. 528."

Chapter III, General Laws.

Exemptions.

Section 183 - "and any child presenting a certificate, signed by a registered physician designated by the parent or guardian, that the physician has at the time of giving the certificate personally examined the child and that he is of the opinion that the physical condition of the child is such that his health will be endangered by vaccination, shall not, while such condition continues, be subject to the two preceding sections." (Enforced vaccination by boards of health (see 181,182).)

1. Editorial - Am. Journal of Public Health vol. XXII
No. 2 Feb. 1932, p. 124

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This is one of our finest regulations and it is followed almost to the letter of the law. Smallpox is very rare in Massachusetts and when there is an outbreak, the disease is usually brought in by some outsider. This is a good record which should be continued and improved if possible. It would be well for other states to follow Massachusetts in the matter of compulsory vaccination for in an editorial in the American Journal of Public Health for February 1929, is found this statement: "Smallpox continues to be a blot upon our record. In the United States in 1927, with the exception of India, we lead the world in this respect. Certainly there is a call for especial activity on the part of health officers and health workers to combat the false ideas which are constantly being put forward in regard to vaccinations, as well as the apathy of the public in regard to this simple, safe and efficient preventative."¹ However, in another journal, this clipping shows that Pennsylvania is with Massachusetts in this respect. "Health or Education? - The medical inspector of a township in Pennsylvania sent home several pupils who were not vaccinated against

1. Editorial - Am. Journal of Public Health vol. XLX
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smallpox. The school board ordered them to return to school. The next thing the members of the school board knew they had been haled into court before a justice of the peace and fined with costs imposed. 'The law must be obeyed' says Pennsylvanians."¹ There are still some pupils entering school in Massachusetts with a doctor's certificate instead of a vaccination mark, but they are a small per cent of the school population. We can well be proud of the efficient way the state of Massachusetts enforces her vaccination law.

Ventilation and Sanitation.

Chapter 143, General Laws.

Ventilation and Sanitation. Inspection by Dept. of Public Health.

Section 42. "Every public building as defined in section one, except school-houses in which public or private instruction is afforded to less than eleven pupils at one time, shall be kept clean and free from effluvia arising from any drain, privy, or nuisance, shall be provided with a sufficient number of proper water closets, earth closets or privies, and shall be ventilated in such a manner that the air shall not become so impure as to be injurious to health. If it appears to an inspector that further or different heating, ventilating or sanitary provisions are required in any such public building, or in order to conform to the requirements of this section, and that such requirements can be provided without unreasonable expense, he may issue a written order to the proper person

1. Tobey, James A. LLB. Dr. P.H. American Journal of Public Health. Vol. XVIII No. 8. Aug. 1928. p. 1070.

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Chapter 143, General Laws.

Ventilation and Sanitation. Inspection by Dept. of Public Health.

Section 43. "Every public building as defined in section one, except school-houses in which public or private instruction is afforded to less than eleven pupils at one time, shall be kept clean and free from offensive odors from any drain, privy, or out-house, shall be provided with a sufficient number of proper water closets, earth closets or privies, and shall be ventilated in such a manner that the air shall not become so impure as to be injurious to health. If it appears to an inspector that further or different heating, ventilating or sanitary provisions are required in any such public building, or in order to conform to the requirements of this section, and that such requirements can be provided without unreasonable expense, he may issue a written order to the proper person

or authority, directing such heating, ventilating or sanitary provisions to be provided. A school committee, public officer or person who has charge of, owns or leases any such public building, who neglects for four weeks to comply with the order of such inspector, shall be punished by a fine of not more than one hundred dollars. The district health officers or such other officers as the department of public health may from time to time appoint shall make such examinations of school buildings subject to this section as in the opinion of the department the protection of the health of the pupils may require. This section shall not apply to Boston."

This law has to do with the buildings where our children spend two thirds of their waking hours and yet it is practically ignored by both the health workers and the school administrators, especially in the secondary schools. Possibly there is one exception to this previous statement as many schools do pay attention to the temperature of the classrooms, but even so, we still find plenty of rooms with inadequate temperature readings. It has been proved that window ventilation is superior to any fan system known, but we still have many school buildings with heating systems regulating the temperatures by fans. In these same buildings no matter how high the temperature soars, the windows must be kept closed, and woe to the teacher who dares to disobey this law. The janitor says the windows must stay closed and in this the janitor is the law. Very little attention is paid to the sanitation of our school build-

ings. Occasionally a school doctor or the principal of the building inspects the building, but usually the janitor or the scrub woman are the only people to ever enter some of the rooms. School administrators seem to forget that either sanitation or ventilation is important.

"Ventilating Congress - When a little item of \$323,000 for a system of improved ventilation in Congress came up in the House on April 14, the members immediately displayed unusual interest in public health.

-- The House evidently thought it was worth the \$323,000 as they passed it. Would they be as eager to appropriate as much for the health of the 110,000,000 or more people in the United States as for 531 members of Congress?"¹

No doubt school authorities and the public in general should display an unusual interest in public health and try to bring about some changes for the better in the sanitation and ventilation of our school buildings.

The other laws are on employment certificates and health camps. Because of a limited amount of time, these last two laws are purposely left out of this paper.

Many of the very important school health procedures are not backed up by legislation in Massachusetts, but

1. Opp. cit. 1, p. 30 -Vol. XVIII No. 6, June 1928, p.820-1

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it is probably better so. We cannot force people to follow some of the roads of health for in doing so we defeat our own purpose which is good health for all so that they may lead a fuller, happier life. It is better that we lead them on through **these** paths, and to do this we do not need legislation, but we do need the foresight, the leadership and the patience of our health education leaders.

For the year 1933 and are, therefore, the latest available data for health work in the schools of Massachusetts. The high school questionnaire was sent to two hundred and fifty principals and only one hundred and eighty-six were filled out and returned. The elementary and junior high school questionnaires were sent to four hundred and sixty principals and only three hundred and sixteen were returned.

Classification of Schools: The schools whose returns are included in this study have been classified in groups according to the population of the towns and cities and are designated as groups IA, IB, II and group III.

Group IA - Population 10,000 to 25,000

Group IB - Population above 25,000

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Chapter IV.

HEALTH WORK IN THE ELEMENTARY AND JUNIOR HIGH SCHOOLS.

The Source of Information: The statistics used in this paper were kindly given me by the State Department of Public Health. They were compiled from two questionnaires. One was sent to the superintendents of schools and the other to the high school principals. They were sent out in September, 1933 and are, therefore, the latest available data for health work in the schools of Massachusetts. The high school questionnaire was sent to two hundred and fifty principals and only one hundred and eighty-six were filled out and returned. The elementary and junior high school questionnaires were sent to four hundred and sixty towns and cities and only three hundred and sixteen made returns.

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Group IA - Population 10,000 to 25,000

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There is no way of determining the organization of the

school system from this grouping. The towns or cities may have junior high schools and they may not. They may be having a two year junior high school and a four year senior high school, or they may be having three years of junior high school and three years of senior high school. For our purpose this makes little difference as the boys and girls need health education whether they are in the six-three-three system or the six-two-four. The data concerning our school physicians and school nurses applies to all schools in a school system and there are certain questions in the questionnaire sent to the superintendents of schools which apply only to the junior high schools.

The Administration and Its Relation to School Health Work:

Appropriations: Our school appropriations for health work are made by the administrators of the school system, and it is interesting to note what part of the school budget is given over to health work.

Table No. 1

School Appropriations and Appropriations for Health Work

	Average Total Appropriation for school health work	Average Total School Appropriations	Per cent of money used for health work
Group 1A	\$ 8,256.18	\$ 240,669.90	3.43%
Group 1B	40,251.30	1,585,266.00	2.54%
Group II	2,478.47	166,883.00	1.42%
Group III	590.50	31,258.60	1.56%

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Group IB	40,251.30	1,585,288.00	2.54%
Group II	2,478.47	168,882.00	1.48%
Group III	290.50	31,258.80	1.58%

As we glance at this table it looks as if quite a bit of money is being used wisely for health work. On further examination, however, we find that on the average group IA is actually spending 3.43 per cent of its average total salary for this work. The percentage in the other groups is even less. Group IB, the average total amount for health work is 2.54 per cent of the average total budget, group II, 1.42 per cent and group III, 1.56 per cent.

If we could go to the records of these schools we should find that the greatest part of this appropriation for health work is used to pay the salaries of the school doctors and the school nurses.

In the smaller towns and sometimes in the larger cities the salaries of the nurses are supplemented by an outside organization, such as the Board of Health, the Red Cross and the Anti-tuberculosis Association. This has to be done in order to make the salary of the school nurse enough so that she can live.

School doctors are usually engaged for part time work and their salaries range anywhere from \$50. to \$1400. a year. Some school physicians are hired only for the physical examination of students and they usually serve one or two days out of the entire school year, receiving a remuneration either five or ten dollars a day. A few of the larger cities have physicians on a full time basis and they

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receive moderate salaries, but such positions are very rare.

The money for salaries and equipment of the physical education department is not included in this part of the budget.

Occasionally we find some of the budget for health work, in the larger cities, being used for school clinics such as dental clinics, cardiac clinics, etc., and very rarely we find a little being spent for special classes such as "sight-saving classes", "lip reading classes", and "open air classes", etc. However, we do have a number of these clinics and special classes, as many times they are supported by outside agencies such as the State, the local Department of Health, the Red Cross or other private agencies. The Ten Year Tuberculosis Clinic or the Chadwick Clinic, which has done such an outstanding piece of work in the prevention of tuberculosis, is a fine example of a state supported clinic, and the Forsyth Dental Infirmary in Boston is a splendid example of a clinic supported by a private agency. The traveling clinic is becoming more and more popular, especially in dental work, and this is supported by a private agency or by the county.

We can spend millions of dollars in this country for cosmetics or for tobacco without ever giving it a second thought but if our schools spend a few thousand dollars on the health of our boys and girls there is much consternation.

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about it. Some one suggests that this is too much of a burden on the taxpayer, and that the health of the boys and girls is the responsibility of the home anyway. Some one else suggests that this is a "frill or a fad" and the schools should stick to the three "R's" and let the other things alone. "Unfortunately health itself is not a concrete commodity, like the silver dollar, and therefore it is hard for school administrators or the community at large to evaluate the school health program. Many times, health improvement is hard to measure, as health is much too broad, too ill defined and too complex a conception to permit of measurement in all its physiological, psychological and genetic relationships!"¹ However, that is no excuse for neglecting the health of the youth of today, as the real difficulty in health teaching lies in protecting them from the man-made complexities of our modern world.²

School Physicians: Salaries: One of the first questions put to the superintendents of schools was whether the school doctor was on a full time basis or not and the next table is enlightening.

1. Child Health Bulletin Vol. III No. 4 - June 1927 pp. 98-99
2. Health Education and the Preparation of Teachers - Pamphlet published by Am. Child Health Asso. p. 111.

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Table No. IINumber full time physicians and their average salaries.

	Physicians on full time	Average salary
Group 1A	-	-
Group 1B	4	\$4410.
Group II	-	-
Group III	-	-

In group 1B (which includes our largest cities), we find four school physicians on a full time basis receiving an average salary of \$4,410. Whether the physicians are all in one school system or are in four different school systems cannot be determined from this table. We do know that the salaries paid these same physicians are too small and that they necessarily would not attract the type of physician Dr. Sundwall describes as a director of health in a school system. "The director should occupy a relatively high position in the administration of the municipal, county or district schools. He should be an assistant superintendent of schools in charge of the health education program. Unless the director is given authority in the school's administration, an effective program cannot be anticipated. His job is to see that a sound program of health education including both health teaching and health machineries, is maintained in the schools under

Table No. II

Number full time physicians and their average salaries.

Physicians on full time	Average salary
Group IA	-
Group IB	\$4,410
Group II	-
Group III	-

In Group IB (which includes our largest cities), we find four school physicians on a full time basis receiving an average salary of \$4,410. Whether the physicians are all in one school system or are in four different school systems cannot be determined from this table. We do know that the salaries paid these same physicians are too small and that they necessarily would not attract the type of physician Dr. Gundwall describes as a director of health in a school system. "The director should occupy a relatively high position in the administration of the municipal, county or district schools. He should be an assistant superintendent of schools in charge of the health education program. Unless the director is given authority in the school's administration, an effective program cannot be anticipated. His job is to see that a sound program of health education including both health teaching and health machines, is maintained in the schools under

his jurisdiction. Under his direction and in charge of the health education of each school unit should be a man or woman who has had training in the principles of school health work. School nurses, physical educators and nutrition workers would make good local school health authorities."¹ However, no school physician in this state as yet fits this description and the salaries of the full time doctors are more than adequate.

As the majority of our school physicians in Massachusetts are on a part time basis it is interesting to note the average salaries of these men in the different groups.

Table No. III

Average Salary paid the school physicians

	Average Salary of part time school doctors
Group 1A	\$758.00
Group 1B	800.24
Group II	362.12
Group III	116.32
*Not stated - 7	

In the Course of Study in Health Education for Elementary Schools by the Department of Education in the Commonwealth of Massachusetts, it says, "In a progressive

1. Sundwall, John, Ph.D. M.D. - Why a Physician Should Head the School Health Program - The Nations' Schools vol. X No. 5 Nov. 1932 - p. 51

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community, the school physician plays an important part in the school health program. He visits schools each morning when school is in session, or is on call at a definite time to receive reports from them. Although his duties are prescribed by law and interpretations of such laws vary, his main duties are included under the following activities: annual health examinations, examinations for working certificates, control of communicable diseases, and sanitation of school buildings. Neither the school physician or the school nurse can give treatment with the exceptions of first-aid treatment. They can only refer cases to family physicians and hospital service."¹

Some of the duties stated above must be neglected by the school physicians with the salary scales as low as we find them in table No. III. A good doctor cannot afford to give enough time to adequately fill the specified duties if his salary is as low as \$100.00 a year or even if it is \$800.00 a year, consequently the majority of the school physicians in our schools here in Massachusetts, do just what is absolutely required by their local school authorities and possibly the local board of health. They have little or no personal interest in this extra work for which they receive a few paltry dollars.

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1. A Course of Study in Health Education - The Commonwealth of Mass. Dept. of Ed. Vol. XXII No. 9, Sept. 1930, p. 10.

community, the school physician plays an important part in the school health program. He visits schools each morning when school is in session, or is on call at a definite time to receive reports from them. Although his duties are prescribed by law and interpretation of such laws vary, his main duties are included under the following activities: annual health examinations, examinations for working certificates, control of communicable diseases, and sanitation of school buildings. Neither the school physician or the school nurse can give treatment with the exceptions of first-aid treatment. They can only refer cases to family physicians and hospital services."

Some of the duties stated above must be neglected by the school physicians with the salary scales as low as we find them in table No. III. A good doctor cannot afford to give enough time to adequately fill the specified duties if his salary is as low as \$100.00 a year or even if it is \$300.00 a year, consequently the majority of the school physicians in our schools here in Massachusetts, do just what is absolutely required by their local school authorities and possibly the local board of health. They have little or no personal interest in this extra work for which they receive a few paltry dollars.

Time Required of School Doctors: A question was asked these superintendents as to the amount of time they required of the school doctor. The answers varied from "Indefinite", "On call", "Examinations Only", "Examinations and Emergencies", "As Needed", "One Day A Year", "Ten Days A Year", "Four Days A Year", to "One Hundred Hours Yearly", "Five to Ten Hours Weekly", and "Visits Every School Day". Two thirds of the answers were that the time of the school physician was "indefinite". This can only mean that the school doctor is not a very important figure in the school program. In most of the small towns and in many of the larger cities his only contact with the school child is the few minutes he spends with him at the time of examination. At the most (as we shall see later) this examination takes but fifteen minutes. In some of our cities and towns it is given just once in the life of the school child, (when he enters school). A very meagre acquaintance for both the child and the doctor. Surely no constructive health work can be done by the school physician who gives as little time as this to his school work.

School Physicians as a Part of the School Department:

School authorities agree that if there is to be a constructive health program in the schools it must be under the jurisdiction of the schools. According to Dr. Sundwall,

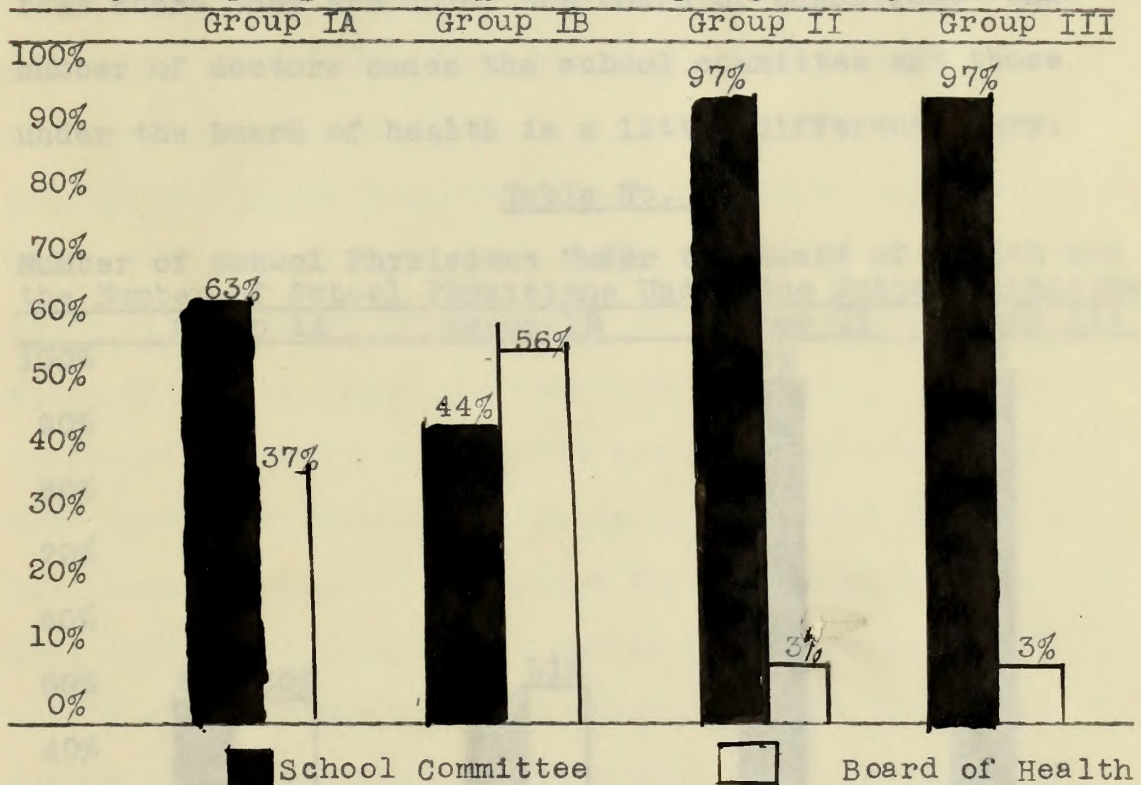
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School Physicians as a Part of the School Department: School authorities agree that if there is to be a constructive health program in the schools it must be under the jurisdiction of the schools. According to Dr. Sutherland,

"The school health program must be an integral part of the public school system under the jurisdiction of the board of educators and the superintendent of schools."¹

Table No. IV.

Number of Places Where The School Physicians Are Under The Board of Health or The School Committee.

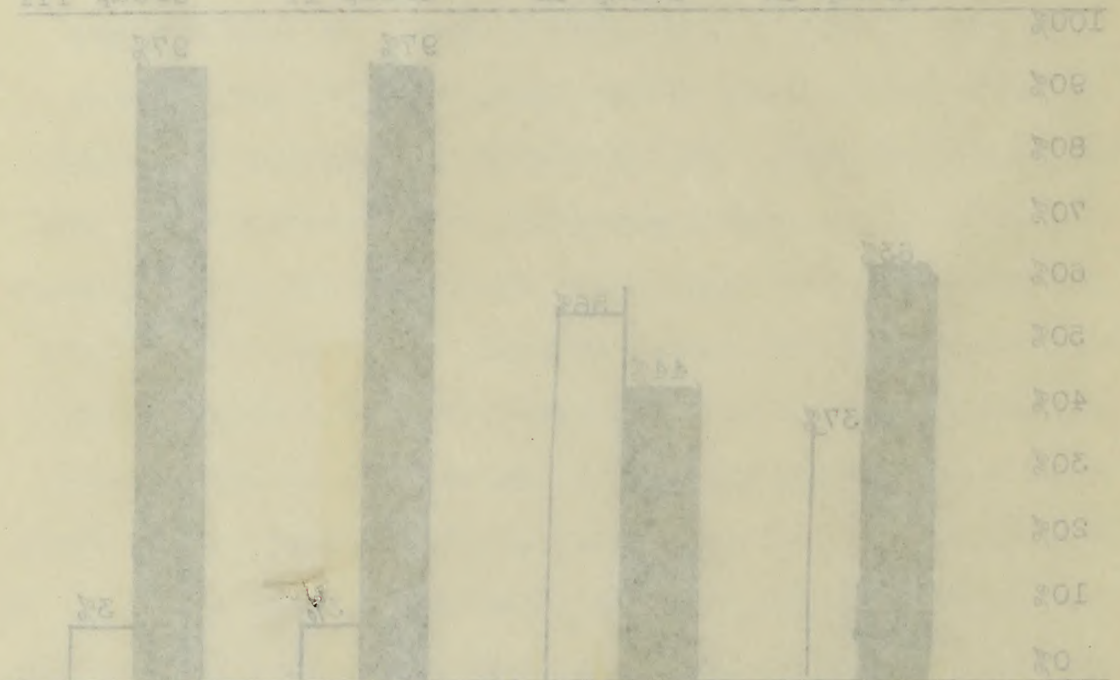


We need a progressive medical service which not only finds defects, but works earnestly to procure corrections of these same defects, and cooperates with all the health workers in the school system in preventive hygiene as well as preventive medicine and preventive sanitation. This can only be accomplished if all the health workers are under the jurisdiction of the school department. The

1. Opp. cit. 1, p.40

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School Committee Board of Health



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 Group I Group II Group III

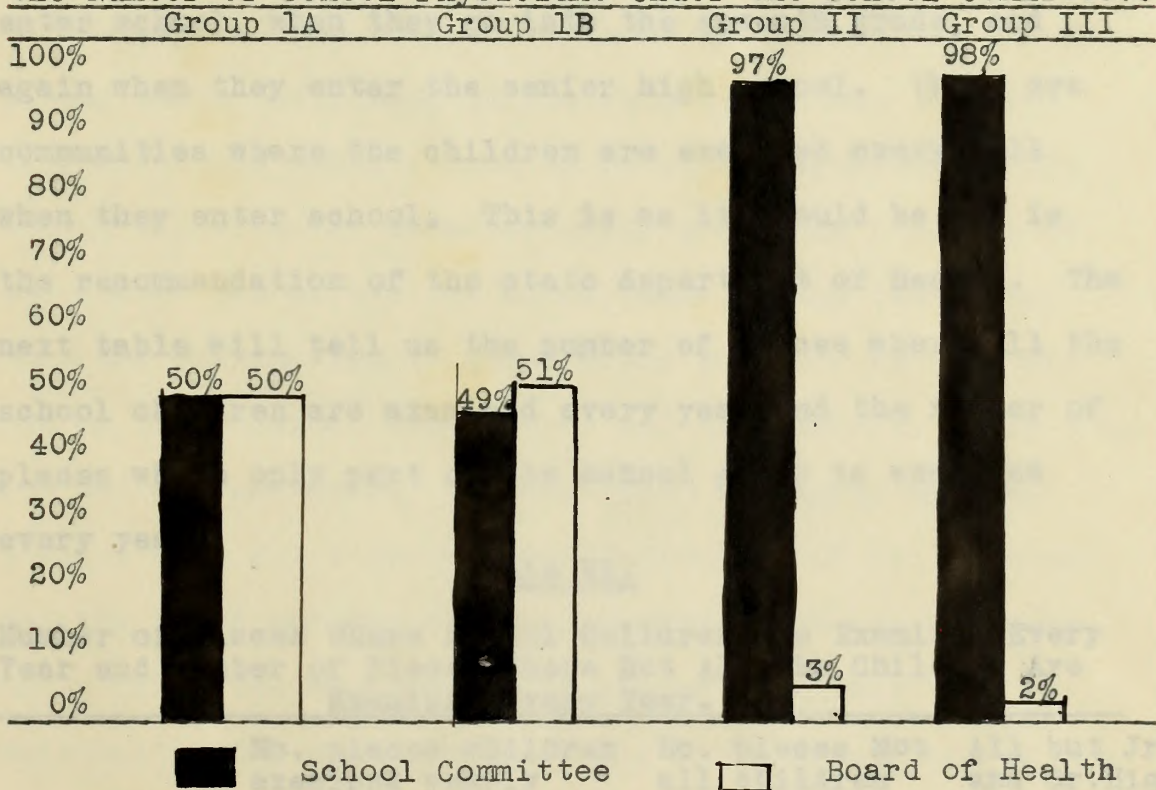
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towns in Group II and III are almost 100% in this respect, but Groups 1A and 1B fall far behind them. Group 1B, which includes our largest cities, has more towns and cities where the physicians are under the board of health than where they are under the board of education. The number of doctors under the school committee and those under the board of health is a little different story.

Table No. V.

Number of School Physicians Under the Board of Health and the Number of School Physicians Under the School Committee.

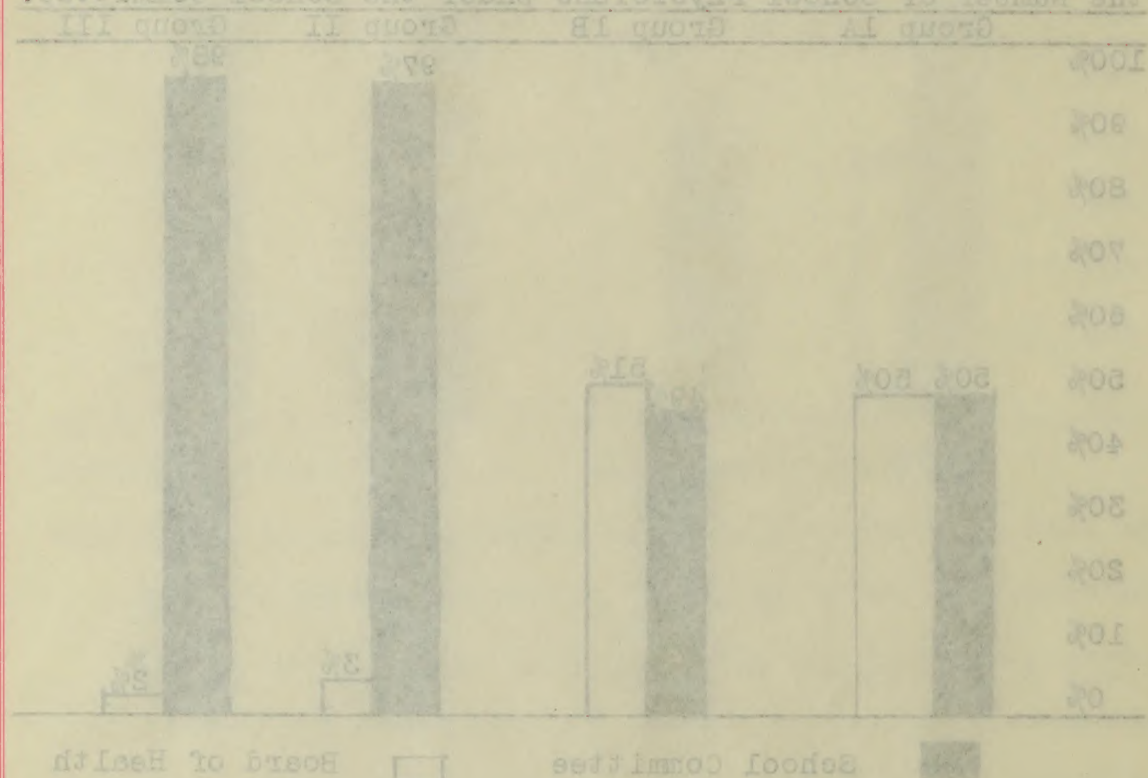


Groups 1A and 1B still fall far below groups II and groups III. Possibly this is because the board of health is a much stronger organization in the larger cities than it is in the smaller towns.

towns in Group II and III are almost 100% in this respect, but Groups IA and IB fall far behind them. Group IB, which includes our largest cities, has more towns and cities where the physicians are under the board of health than where they are under the board of education. The number of doctors under the school committee and those under the board of health is a little different story.

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Groups IA and IB still fall far below Groups II and Groups III. Possibly this is because the board of health is a much stronger organization in the larger cities than it is in the smaller towns.

Examinations of Pupils by School Physicians: Examinations of students by the school doctors vary as perceptibly as the proverbial "57". In many places the school authorities, or the school doctor, or both, feel that when the child first enters school he should be examined and therefore this is the only time the child is examined. In other places, the children are examined when they enter school, and again when they enter the junior high school. Still other school systems examine the children when they enter school, when they go into the seventh grade, and again when they enter the senior high school. There are communities where the children are examined every fall when they enter school. This is as it should be and is the recommendation of the state department of health. The next table will tell us the number of places where all the school children are examined every year and the number of places where only part of the school group is examined every year.

Table VI.

Number of Places Where School Children Are Examined Every Year and Number of Places Where Not All The Children Are Examined Every Year.

	No. places children examined yearly	No. places not all children examined	All but Jr. and Sr.High examined
Group 1A	6	4	1
Group 1B	15	9	1
Group II	76	6	1
Group III	199	4	-

Examinations of Pupils by School Physicians: Examinations of students by the school doctors vary as perceptibly as the proverbial "87". In many places the school authorities, or the school doctor, or both, feel that when the child first enters school he should be examined and therefore this is the only time the child is examined. In other places, the children are examined when they enter school, and again when they enter the junior high school. Still other school systems examine the children when they enter school, when they go into the seventh grade, and again when they enter the senior high school. There are communities where the children are examined every fall when they enter school. This is as it should be and is the recommendation of the state department of health. The next table will tell us the number of places where all the school children are examined every year and the number of places where only part of the school group is examined every year.

Table VI.

Number of Places Where School Children Are Examined Every Year and Number of Places Where Not All the Children Are Examined Every Year.

	No. places children examined yearly		No. places not all children examined		All but Jr. and Sr. High examined
Group IA	8		4		1
Group IB	15		9		1
Group II	78		8		1
Group III	192		4		-

This looks like a good record with 29 places having examinations every year for every school child and 33 places where part of the children are examined and in only 3 places where all but the senior and junior high school students are examined.

"The physician's diagnosis, especially when he is broadly trained and has an appreciation of social and environmental as well as purely clinical problems, gives a scientific and at the same time practical basis for a great deal of the educational work of teachers and nurses."¹ In the places where the school physician examines the children only when they enter school or in other places where the school children are examined every year, the findings of the doctor may or may not be valuable. Many times even when the examination is given every year the records are put on the physical record card and this card is filed away for use another year. In this case, the nurse has the teacher send out a few notices to parents of the physical defects found and the physical record cards are not used again until the next year. In either case this type of examination can never be the basis for a great deal of the health education work of the teachers and nurses.

1. Health for School Children - School Health Studies No.1
Dept. of the Interior - Bureau of Ed. 1923 p. 46.

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I. Health for School Children - School Health Studies No. 1.
Dept. of the Interior - Bureau of Ed. 1923 p. 46.

Table No. VII.

Places Where Real Examinations Are Given or Where There Is Only an Inspection.

	No. places where real ex. is made	Inspection only	Not stated
Group 1A	5	4	2
Group 1B	13	6	6
Group II	50	10	17
Group III	112	39	52

Table No. VIII.

Places Where Children Are Partially Stripped.

	No. places child is partially stripped	Not par- tially stripped	Not stated
Group 1A	6	3	2
Group 1B	11	6	8
Group II	39	20	18
Group III	94	47	62

Table IX.

Average Time Spent On Examinations Per Pupil by School Physician.

	Average time spent
Group 1A	5½ min.
Group 1B	4½ "
Group II	5.9 "
Group III	5.8 "

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Table IX.

Average Time Spent on Examinations per Pupil by School
Physician.

Group	Average time spent
Group IA	3½ min.
Group IB	4½ "
Group II	5.2 "
Group III	5.8 "

These three tables tell a very interesting story.
One hundred and eighty places state that a real examina-

tion is given while only fifty-nine places say that this is an inspection only, and yet five and one-half minutes is the average time spent by the physician on each pupil. Seventy-six places admit that the children are not even partially stripped. The time for these examinations ranges from three minutes per pupil to fifteen minutes per pupil. In the pamphlet, "Health for School Children", it says; "Health examinations to chart the conditions of the child, reveal his physical and mental defects, and indicate the relations of such defects, if any, to his capacities." ¹ How can one chart the condition of the child after a three minute examination? Or even after a fifteen minute examination with the child not stripped at all? At best the examination is nothing but a medical inspection and should be considered as such. Some defects are found and some are finally corrected, but many, quite serious conditions, are not even noticed. Until we have full time physicians, adequately remunerated, we will never get a real examination of the school child.

Other duties of the school physicians are listed in the next table.

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Other duties of the school physicians are listed in the next table.

Table No. X. (continued)

Duties of The School Physician.				
	No. places where physician makes written reports	Yes	No	Not stated
Group 1A		5	2	3
Group 1B		9	9	3
Group II		44	17	9
Group III		88	46	23
	Makes regular school visit			
Group 1A		7	1	2
Group 1B		20	0	1
Group II		34	12	12
Group III		51	80	66
	Ex. for working certificate			
Group 1A		9	1	0
Group 1B		19	1	1
Group II		59	4	4
Group III		93	45	19
	Ex. cases referred by teachers and nurses.			
Group 1A		10	0	0
Group 1B		20	1	0
Group II		64	0	3
Group III		151	4	2
	Sees children after communicable diseases.			
Group 1A		7	2	1
Group 1B		14	6	1
Group II		40	19	8
Group III		93	41	23

(continued)

Table No. X.

Duties of the School
Physician.

Group	No. places where physician makes written reports			Not stated
	Yes	No	Not	
Group IA	3	3	3	
Group IB	3	3	3	
Group II	44	17	9	
Group III	33	43	23	
Makes regular school visit				
Group IA	7	1	2	
Group IB	20	0	1	
Group II	34	13	13	
Group III	31	30	33	
Ex. for working certificate				
Group IA	3	1	0	
Group IB	13	1	1	
Group II	32	4	4	
Group III	33	43	13	
Ex. cases referred by teachers and nurses.				
Group IA	10	0	0	
Group IB	30	1	0	
Group II	34	0	3	
Group III	131	4	3	
Sees children after communicable diseases.				
Group IA	7	3	1	
Group IB	14	3	1	
Group II	40	13	3	
Group III	33	41	23	

(continued)

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	No. places where physician makes a sanitary inspection of building		Not stated
	Yes	No	
Group 1A	7	2	1
Group 1B	11	6	4
Group II	35	21	11
Group III	78	52	27

According to this table fifty-six per cent of the school doctors make reports in writing. How often these reports are made or by whom they are written, this table does not tell us. In some places I know that the nurse writes this report which is signed by the doctor, as she keeps track of what the doctor does and knows more about it than the doctor himself. This is legitimate as the nurse has the records at hand and she should be given time to do it. These reports are usually handed in once a year.

Fifty-two per cent of the towns and cities have their school doctors make sanitary inspections of the schools. Here again it does not say how often this is done nor how thoroughly. Possibly there are some school doctors who go regularly to school buildings, make sanitary inspections and then send in their recommendations to the school board if changes should be made. As I have come in contact with school health programs, the only sanitary

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inspection made by the school doctor was a glance at the corridor as he entered or a question to the principal, "How are the basements, Mr. So and So?", and that is the end of the inspection. One building where I visited in this state the school doctor was examining junior high school students in the principal's office, the door into the corridor was open and the janitor was sweeping the corridor.

Forty-four per cent of our towns and cities have doctors who make regular visits to the schools. It is difficult to understand how a doctor can make a definite, constructive contribution to the health program unless he does visit the schools regularly, and yet in fifty-six per cent of the towns and cities in this state, this is not done.

Our state law definitely states that the school physician shall examine those who apply for working certificates, and still we have twenty-nine per cent of our school administrators either definitely stating that this is not done or saying that he does not know whether it is done or not. However, this table gives a much better picture of what school doctors are doing than we would expect to see. For have we not seen the salary scales of these same men?

Most of the school doctors examine children referred to them by the school nurse or the teacher, and this is a real contribution. In over sixty per cent of the towns

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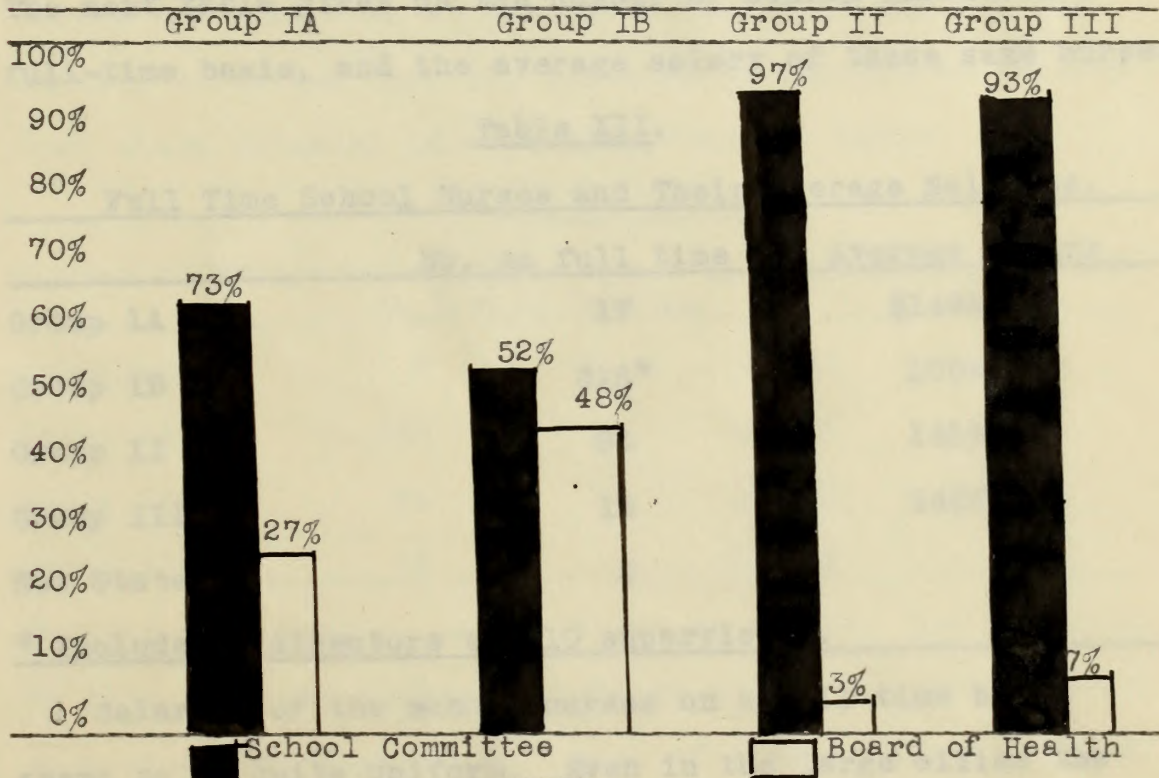
and cities they (the school doctors) see the children after they have had a communicable disease, before they are allowed to return to school.

It might be safe to assume that for the money they receive the majority of our school doctors are doing all we can expect them to do.

School Nurses: The school nurse, like every public health nurse, is an interpreter of health knowledge from scientifically authoritative sources. In many places she carries most of the responsibility in making health education available to the children of school age.¹

Table No. XI

Number of Places Where The School Nurses Are Under The School Committee or Under The Board of Health.



1. Hilbert, Hortense - The Public Health Nurse, vol. XXII No. 9 Sept. 1930, p. 443.

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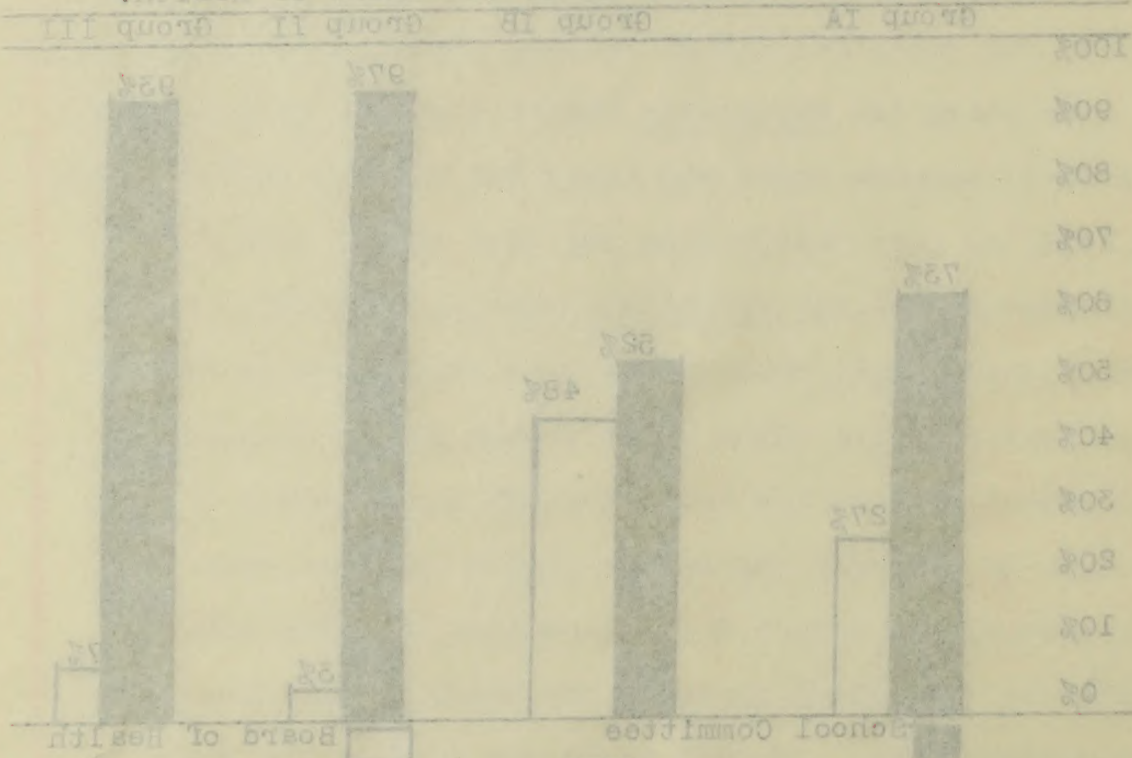
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Some of the school nurses, as well as the school doctors, are employed by the board of health instead of the school committee. This condition seems to be slowly dying out and it is better so. In group 1B, however, where we find our larger cities, it is quite common. To have a coordinated program of health, in the schools, all of the health workers should be under the school committee and the superintendent of schools should have jurisdiction over them. Groups II and III comprising our small towns have a much better showing in this respect than Groups 1A and 1B.

Average of Salaries of Nurses and Amount of Time Given.

The next table gives us the number of school nurses on a full-time basis, and the average salary of these same nurses.

Table XII.

Full Time School Nurses and Their Average Salaries.

	No. on full time	Average salary
Group 1A	17	\$1492.00
Group 1B	316*	1509.50
Group II	84	1489.27
Group III	13	1402.00
Not Stated	3	

* Includes 2 directors and 10 supervisors.

Salaries of the school nurses on a full-time basis seems to be quite uniform. Even in the large cities the average salary is only \$107.50 higher than in the smallest

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Salaries of the school nurses on a full-time basis seems to be quite uniform. Even in the large cities the average salary is only \$107.50 higher than in the smallest

towns. Some of the duties of school nurses in the secondary schools are listed as; assisting school physician with annual inspections, checking defects on the physical record cards and trying to bring about the correction of the same, follow up work and inspection of school children when communicable diseases are found, first aid for minor injuries, special health advice given individually to pupils, home visits, readmittance to school after illness, assisting the physical education director with weighing, eye testing, and special inspection, health and hygiene talks, dental clinic work and keeping records. Later when we see the amount of training the school system expects of their nurses and then look at the above paragraph and see the variety of duties they are expected to perform we realize that their salaries are certainly not too large.

Table No. XIII.

Number of Nurses Doing Other Types of Nursing in Addition to School Nursing.

Group 1A	7	3.23%
Group 1B	105	48.38%
Group II	26	11.98%
Group III	79	36.41%

Part-time Nurses: As we follow on in this questionnaire we find that two hundred seventeen nurses are doing school work on a part-time basis. Most of them do other types of nursing beside their school work. They give part of their

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 nursing beside their school work. They give part of their

time to the Red Cross or to the Visiting Nurses Association or the Anti-tuberculosis Association. In some counties they are under the county as a school nurse and hired for this purpose, and they serve several small towns in the county. In group IA we find seven part-time nurses, in group IB one hundred and five, in group II twenty-six, and in group III seventy-nine. Group IB has a large number of full-time nurses and also a large number of part-time nurses.

We have a large number of school nurses in Massachusetts and in general they are doing an outstanding piece of work. Most of them work long hours, patiently, and fearlessly for the welfare of the school child.

Salaries for part-time nurses and time given.

Table No. XIV.

Average Salaries for Part-Time Nurses and Time Spent in Schools.

	Av. days a month	Mode	Av. Salary	Mode
Group IA	8 days	-	\$650.	-
Group IB	8 "	-	360.	-
Group II	9 "	4	879.	\$500.
Group III	4 1/2 "	4	356.	400.

As we have judged most of these salaries are supplemented by salaries from other agencies such as the Visiting Nurses Association, the Red Cross, etc. If this were not so these nurses would not be able even to live. Ac-

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according to the time given to the schools by the nurses,
I should say that the salaries were fair.

Definite Program for Nurses.

Table No. XV.

Number of Places Where the Nurses Have a Definite Program.

	Yes	No	Not Stated
Group IA	11	-	-
Group IB	25	-	-
Group II	67	8	2
Group III	175	14	14

Table No. XVI.

Average Number of Pupils per Nurse

Group IA	2148
Group IB	2111
Group II	1607
Group III	324

Both of these tables show that the work of the school nurse in general is of great service to the schools. In the majority of cases the nurses have a definite program and the average number of pupils per nurse is not too large. In some of the larger towns and cities there must be nurses who have more than 3,000 children under their supervision, but in general the number is nearer 2,000, which is the maximum number given by health experts that a school nurse can adequately serve.

according to the time given to the schools by the nurses.

I should say that the salaries were fair.

Definite Program for Nurses.

Table No. XV.

Number of Places Where the Nurses Have a Definite Program.

	Yes	No	Not Stated
Group IA	11	-	-
Group IB	25	-	-
Group II	67	8	2
Group III	175	14	14

Table No. XVI.

	Average Number of Pupils per Nurse
Group IA	2148
Group IB	2111
Group II	1507
Group III	324

Both of these tables show that the work of the school nurse in general is of great service to the schools. In the majority of cases the nurses have a definite program and the average number of pupils per nurse is not too large. In some of the larger towns and cities there must be nurses who have more than 5,000 children under their supervision, but in general the number is nearer 2,000, which is the maximum number given by health experts that a school nurse can adequately serve.

In the smaller towns this average is very low, but usually the nurses are on a part-time basis and therefore, they serve other school systems in the county. In eighty-five per cent of the places answering the questionnaire the nurses have a regular schedule. Usually this schedule is closely followed and the nurses are of unestimable value to the pupils, the teachers and parents. Of course we find exceptions to this good record; places where the school nurse is elected because of a "political pull", places where the school nurses are under the Board of Health and this organization does not cooperate well with the Board of Education, and places where the nurses have more schools and children than they can possibly handle. In one of our larger towns the school nurse is also the director of health education. To be sure she has had special training in health education, but there are nearly four thousand school children under her supervision and she is supposed to do the work of the school nurse and also supervise the health education work. Any one can see that either she is going to do one piece of work and do it well, thereby doing nothing with the other part of the work, or that she is going to try to do both and thereby they will both suffer equally. It is a physical impossibility for one person to do these two things.

This probably is a very exceptional case but many

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times school authorities expect more of the school nurse than is humanly possible for any one person to do. This condition evidently came about when school nurses were first required by law. School superintendents knew they must have them, but they didn't know or care what their work was to be, or how long it would take. Even today we find school superintendents and principals who know very little about the work of the school nurse and they are still demanding more of these nurses than they should. Such school administrators are becoming rare, however, and we hope they will be a thing of the past in the near future. In general these are adequate reports.

Table No. XVII.

Number Places Where Nurses Make Regular Written Reports.

	Yes	No	Not Stated
Group IA	8	-	3
Group IB	15	2	8
Group II	61	1	15
Group III	119	12	72

Two hundred and three places out of the three hundred and sixteen answering the questionnaire stated that the nurses make a regular written report. This of course, is an interesting table. It does not tell the kind of a report the nurse makes or to whom it is made nor how often she presents it.

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Group IB	15	2	8
Group II	81	1	15
Group III	119	12	72

Two hundred and three places out of the three hundred and sixteen answering the questionnaire stated that the nurses make a regular written report. This of course, is an interesting table. It does not tell the kind of a report the nurse makes or to whom it is made nor how often she presents it.

From experience I know that these reports vary a great deal. On the one hand the school nurse must make out a daily detailed report, the number of schools visited, the number of rooms in these buildings and the time spent in these rooms, the number of pupils examined, the number of home calls, the time spent in each home, and so forth and so on. This report must be handed in every month with every working day accounted for. At the other extreme is the yearly report with the work outlined in general. In between these two are many other types of reports.

The state department of health favors the detailed daily report for nurses and has blank forms for any school systems wishing them.

The schools have a variety of requirements for the nurses employed by them.

Table No. XVIII.

Graduate Nurses Serving As School Nurses.

	No. Graduate Nurses	Non-Graduate
Group 1A	17	1
Group 1B	166	16
Group II	90	10
Group III	117	10
Not Stated ---	2	

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Table No. XVII.

<u>Graduate Nurses Serving As School Nurses.</u>		
<u>No. Graduate Nurses Non-Graduate</u>		
Group IA	14	1
Group IB	138	16
Group II	90	10
Group III	117	10
Not Stated --- 2		

Table No. XIX.Registered Nurses Who Are School Nurses.

	No. Registered Nurses	Non-Registered	Not Stated
Group IA	15	-	3
Group IB	114	3	65
Group II	89	4	7
Group III	106	17	6

No. not stated as either graduates or
registered nurses

Group IA	-
Group IB	20
Group II	12
Group III	17

The number of places requiring graduate and registered nurses is very gratifying. The nursing program in the school is so important that we need to have a well trained personnel. One of the most important phases of the nurse's work is the follow up work, which includes the home calls. In this work the nurse, many times, must educate the parents. For this, if for no other reason, she should be the highest type of individual with a training in public health work and special educational work if possible. She must work with teachers who are well prepared for their work. In order to work adequately with these teachers she must have their respect and cooperation. She cannot expect this

Table No. XIX.

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Group	No. Registered Nurses	Non-Registered	Not Stated
Group IA	18	-	2
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Group II	89	4	7
Group III	106	17	6

No. not stated as either graduates or registered nurses

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unless she is as well, if not better prepared for her work than they are for theirs. She must have a pleasing personality and much tact for she not only works with parents, teachers, doctors, dentists, etc., but she also works with children and children are merciless in their judgment of people.

She should be a rare individual, this school nurse, and in some places we are finding just such people. In too many places, however, they are just nurses plodding along with the attitude of one I recently talked with who said, "I've been to the home of that child twice and they'll never do anything for him. He isn't worth bothering with anyway."

The next two tables show that many of our towns and cities have secured nurses with a goodly amount of training for the work they have chosen.

Table No. XX.

Education of Nurses.

	Gr. IA	Gr. IB	Gr. II	Gr. III
High School Grad.	186	52	58	67
1 to 3 yrs. High School	126	48	27	42
Grammar School Only	3	-	1	2
No. not stating as to H. S.	16	6	6	4
No. having additional courses	188	61	62	59
No. College or Normal Grads.	1	-	-	1
No. not stated	150	96	20	31

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Table No. XX.

Education of Nurses.

	Gr. IV	Gr. V	Gr. VI	Gr. VII	Gr. VIII
High School Grad.	188	88	88	67	
I to 3 yrs. High School	188	48	27	42	
Grammar School Only	3	-	1	2	
No. not stating as to H. S.	16	6	2	4	
No. having additional courses	188	61	62	69	
No. College or Normal Grads.	1	-	-	1	
No. not stated	150	88	20	31	

Table XXI.

Number Places Requiring The Following Qualifications of Nurses.

	Gr.1A	Gr.1B	Gr.II	Gr.III
Graduate Nurse	7	17	57	116
Registered Nurse	7	17	51	130
Gen. Public Health Training	1	3	24	49
High School Diploma	2	4	18	39
Training in School Hygiene	2	3	14	34
Civil Service	4	10	-	-
Experience	1	-	3	1
Not Stated	38	-	1	6

As we study these tables we find that one hundred-ninety seven places or 62 per cent require the nurse to have a high school diploma. It seems that our school administrators and public health workers are endeavoring to get nurses who are adequately trained in spite of the fact that there is no requirement for this; and according to this table they seem able to get them even though the majority of the salaries are very small. These same nurses also keep on studying for we find two hundred and ninety of them or 66 $\frac{2}{3}$ per cent having additional courses. It appears here that the school nurses in Massachusetts are well trained, of fine character with pleasing personalities. Usually they are interested in their work and they

Table XII.

Number Places Requiring The Following Qualifications of Nurses.

	Gr. IA	Gr. IB	Gr. II	Gr. III
Not Stated	38	-	1	8
Experience	1	-	3	1
Civil Service	4	10	-	-
Training in School Hygiene	3	3	14	34
High School Diploma	3	4	18	39
Gen. Public Health Training	1	3	24	49
Registered Nurse	7	17	51	130
Graduate Nurse	7	17	57	116

As we study these tables we find that one hundred-ninety seven places or 68 per cent require the nurse to have a high school diploma. It seems that our school administrators and public health workers are endeavoring to get nurses who are adequately trained in spite of the fact that there is no requirement for this; and according to this table they seem able to get them even though the majority of the salaries are very small. These same nurses also keep on studying for we find two hundred and ninety of them or 68 2/3 per cent having additional courses. It appears here that the school nurses in Massachusetts are well trained, of fine character with pleasing personalities. Usually they are interested in their work and they

work long and hard, to quell an impending epidemic or to secure the correction of a physical defect which they know would be of benefit to the child so afflicted. Their work with the children, the teachers and the parents is a credit to them and to their schools.

Usually the nurse does not spend so much time in the senior high school as in the other schools, but in the junior high schools she spends the same amount of time she does in the elementary schools. Later we shall find out just what the nurses do in the senior high schools.

Health Education: Having considered the administration and organization of the health work in the schools, it is appropriate that we consider the health education activities. All phases of the health work in the senior high school are to be considered separately in this paper, as a special questionnaire was sent to the senior high school principals by the state department of health.

Table No. XXII.

Number of Health Education Supervisors And Their Average Salary.

	No. of H. E. Supervisors	Average Salary (yearly)	Full Time	Not Stated
Group IA	0	-	-	-
Group IB	7	\$3,066.66	1	6
Group II	8	2,230.57	3	5
Group III	9	342.00	-	9

As yet we have few health education supervisors in

work long and hard, to quell an impending epidemic or to secure the correction of a physical defect which they know would be of benefit to the child so afflicted. Their work with the children, the teachers and the parents is a credit to them and to their schools.

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Group III	9	\$422.00	-	9

As yet we have few health education supervisors in

Massachusetts. I believe that the twenty-four listed above would be the complete number if all the towns and cities had answered this questionnaire. As can be seen the number is small only 7.59% of the number of places answering the questionnaire. This figure is decidedly smaller than the figure for the country as a whole. Mr. Brammell found in his study, that twenty-nine per cent of the schools had part-time or full-time directors of health.¹ The available data of the Massachusetts health directors does not give the training or years of experience of the health director. Mr. Brammell found that eighty per cent of the one hundred and thirty-six full-time or part-time health directors had less than ten years experience, and he also found that the junior high schools are employing directors who are experienced and highly specialized in health work.¹ Whether this is true or not in Massachusetts cannot be said at this time. In my observation, however, I think Mr. Brammell's observation would not be true here as the health education director usually works in all the schools, the senior high school as well as the elementary schools and junior high schools.

1. Brammell, P. Roy - Health Work and Physical Education. Bulletin 1932, Mo. 17 Monograph No. 28. U. S. Dept. of the Interior Dept. of Ed. pages 17 & 18.

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1. Brammell, P. Roy - Health Work and Physical Education. Bulletin 1932, No. 17 Monograph No. 28. U. S. Dept. of the Interior Dept. of Ed. pages 14 & 18.

In group 1A we find no directors of health education. This is significant as many of our larger towns are in this group. However, we find that in group 1B 28% of the cities and towns have directors of health education, in group II 11%, and in group III only 3%. Group 1B includes our large cities and this shows a difference of only 1% from the country as a whole.

The health of the teachers. "The modern educational program has produced a complexity in the work of the classroom teacher and occasioned a strain on her physical and nervous energy such as were unknown a generation ago."

"It is, therefore, of special importance that school administrators acquaint themselves with classroom conditions, and that they make every effort possible to provide a satisfactory teaching environment."¹

It is only within the last fifteen years that the health of the teacher has been taken into consideration by school officials, and we know that the healthy, well poised, and self-confident teacher encourages in her pupils favorable attitudes of mental, emotional and physical health.

"However, almost all of the attention of the Superintendent, the Board of Education and the medical department has been directed toward the health of the scholars. Very

1. Corrothers, Geo. E. - The Physical Efficiency of Teachers - Teachers College Series - Columbia University p. 1.

little attention, comparatively, has been given to improving the health of those who teach the pupils."¹

In the pamphlet called "The Teacher's Health", put out by the Metropolitan Life Insurance Co., many causes for ill health among teachers are related. Some of them are - "general physical condition", "teacher's health habits", "financial conditions" and "conditions of teaching";¹ also methods for caring for the teacher's health are suggested. Some of them are "provision of health supervision", "teacher applicants classified according to their health", "periodic examinations", "nursing service", "leaves for recuperation", "improving conditions of living", "healthful teaching environment", and others relating to habits, recreation etc. A few of our large cities are considering the health of the teacher but this means only a few. In Massachusetts we find some cities and towns requiring health certificates from teachers before employment.

Table No. XXIII.

Number Places Requiring Health Certificates From Teachers
Before Employment.

	Yes	No	Yearly		Not Stated
			Yes	No	
Group 1A	-	11	-	-	-
Group 1B	4	21	1	1	2
Group II	3	74	2	1	-
Group III	1	202	1	-	-

1. The Teacher's Health - Monograph No.4 - School Health Bureau - Welfare Division - Met. Life Ins. Co. pp.6-12-23

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Group II	2	74	2	-
Group III	1	202	1	-

1. The Teacher's Health - Monograph No. 4 - School Health Bureau - Welfare Division - Met. Life Ins. Co. pp. 1-12-23

This is a very poor showing. Only eight places in all require a health certificate from teachers and half of these are in group IB, the group of our large cities. Only four of the cities and towns require a yearly examination of teachers. This is only one per cent of the number of places answering the questionnaire. Not much else is being done for the health of the teachers in this state. A few places help their teachers to find healthful living places and a few others have special services for their teachers. For example, "Newton, Mass. offers to teachers assistance in correction of posture defects."¹ Newton also requires that the teachers have a medical examination with a report from the physician before the teachers may go on the Massachusetts tenure system.

Evidently Massachusetts is doing very little for the health of her teachers. It would be well for the cities and towns of this state to do more to conserve the health of their teachers as cities are finding it economical to give more consideration to the health of the teachers. Small communities are saving the cost of rapid "turnover" of teachers by improving the living and working conditions of teachers.

The teacher may best help the child if she herself is given every opportunity to realize her own best possibilities.

1. Opp. cit. - The Teacher's Health p. 67, -- p. 15

This is a very poor showing. Only eight places in all require a health certificate from teachers and half of these are in group B, the group of our large cities. Only four of the cities and towns require a yearly examination of teachers. This is only one per cent of the number of places answering the questionnaire. Not much else is being done for the health of the teachers in this state. A few places help their teachers to find beautiful living places and a few others have special services for their teachers. For example, "Newton, Mass. offers to teachers assistance in correction of posture defects." Newton also requires that the teachers have a medical examination with a report from the physician before the teachers may go on the Massachusetts tenure system.

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Chapter V.

HEALTH WORK IN THE SENIOR HIGH SCHOOLS.

High School Questionnaire. The second questionnaire was sent to 250 high school principals and 191 were returned. The first question asked was in regard to the number of pupils and the number of teachers.

Table No. I

<u>Average Number of Pupils</u>		
Group 1A	914	25%
Group 1B	1957	51%
Group II	599	17%
Group III	145	7%

Table No. II

<u>Average Number of Teachers</u>	
Group 1A	34
Group 1B	68
Group II	23
Group III	7

This gives a very good picture of the size of the high schools. Group 1B has the larger high schools with the number of students ranging anywhere from 1500 to 3500. Group 1A comes next with Group III showing a decided slump with an average of 145. Some of the high schools in Group III have less than 100 students. It will be interesting to see whether the groups with large numbers are doing more health

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Table No. I

<u>Average Number of Pupils</u>		
Group IA	214	234
Group IB	1957	214
Group II	299	174
Group III	145	74

Table No. II

<u>Average Number of Teachers</u>		
Group IA	34	
Group IB	68	
Group II	23	
Group III	7	

This gives a very good picture of the size of the high schools. Group IB has the larger high schools with the number of students ranging anywhere from 1500 to 3500. Group IA comes next with Group III showing a decided slump with an average of 145. Some of the high schools in Group III have less than 100 students. It will be interesting to see whether the groups with large numbers are doing more health

work than the groups with small numbers.

Examination of Pupils. The next question: Does each student have an annual physical examination? Here is the table:

Table No. III

Does each Pupil have Annual Physical Examination?

	<u>Yes</u>	<u>No</u>
Group IA	4	5
Group IB	28	14
Group II	44	21
<u>Group III</u>	<u>65</u>	<u>10</u>

I should like to visit all the places where they say each pupil has an annual examination and have the opportunity to see this examination. I know a place where the students are examined every year but the high school students are examined in April or May as the school doctor examines the elementary school children first. It takes him the entire school year to examine all the school children. The examination itself takes about one or two minutes and the students are not even partially stripped. The school nurse checks the defects found (the number is very small) and sends a notice, by the student, to the parents. The physical record cards are then filed away in the principal's office for another year. The next spring the same procedure is followed. This would be one of the places where the

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principal would answer "yes" to the question stated above.

One hundred and forty-one places in Massachusetts acknowledge that they have an annual examination for each student in the high school while fifty places admit that they do not. Of the fifty that do not give these same examinations annually, there is probably no examination whatever. How many of the others have an adequate examination for every student I would not dare to say, but very likely only a few. In many cases this examination may be an inspection by the school nurse.

In a number of our senior high schools the students participating in athletics are thoroughly examined. "The candidates for teams only given physician's examinations, this inadequacy fully recognized."¹

This inadequacy should be recognized everywhere.

And so, in all the places that answered "yes" to this question we would find similar pictures, some places having a better examination than others. Sometimes, we would find the students stripped to the waist, and occasionally we would find that some of the defects found at the examination would be corrected before the end of the school year. So many times, however, this examination, if given at all in the secondary schools, is just a waste of time.

1. Brown, Maude A. - Teaching Health in Fargo. The Commonwealth Fund, Director of Publications, N. Y. p.24

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J. Brown, Mauds A. - Teaching Health in Large. The Common-
wealth Fund, Director of Publications, N. Y. p. 24

"Standards of physical examinations, diagnosis, and recording of results are necessary, especially when a number of examiners are involved, to procure comparable results. To this end are necessary:

- (1) Definite training in the scope and method of physical examination;
- (2) A thorough understanding of the psychology of the group;
- (3) A knowledge of its statistics and comparative statistics;
- (4) A use of the diagnostic sheets;
- (5) Weekly checking of results on such sheets;
- (6) Conferences with the supervisor to check percentages of defects found and to discuss problems arising;
- (7) Frequent consultations between the doctor during examination of any doubtful diagnosis;
- (8) Reference to private physician or clinic for X-ray or other laboratory measures for additional or corroborative information;
- (9) Special training in clinics, as necessary, to perfect diagnosis;
- (10) Realization that this work needs expert and patient diagnostic ability and that slipshod diagnosis is unnecessary and wasteful."¹

This is probably too big an order for our secondary schools to adopt immediately, but it is a goal to work to-

1. Meyers, Jerome - Physical Findings in New York City Continuation School Boys. American Journal of Public Health vol. XXI No. 6, June 1931 - p. 630.

"Standards of physical examinations, diagnosis, and

recording of results are necessary, especially when a number of examiners are involved, to procure comparable results. To this end are necessary:

(1) Definite training in the scope and method of physical examination;

(2) A thorough understanding of the psychology of the group;

(3) A knowledge of its statistics and comparative statistics;

(4) A use of the diagnostic sheets;

(5) Weekly checking of results on such sheets;

(6) Conferences with the supervisor to check percentages of

defects found and to discuss problems arising;

(7) Frequent consultations between the doctor during examination of any doubtful diagnosis;

(8) Reference to private physician or clinic for X-ray or

other laboratory measures for additional or corroborative information;

(9) Special training in clinics, as necessary, to perfect

diagnosis;

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ward and as Dr. Meyers says, "slipshod diagnosis is unnecessary and wasteful." Later Dr. Meyers says, "Despite the fact that this 14-17 year group shows comparatively low incidence of gonorrhea, syphilis, constipation, tuberculosis, diabetes, heart disease, cancer, arteriosclerosis, nephritis, and occupational disease, all these usually serious conditions will mount to their acmes during full adult and industrial life; that despite their low incidence, we still can find 6,532 defects of 234 varieties in 2,691 boys and 7, 8 or more defects in a single boy. It becomes evident therefore that this particular period calls for the strict application of the modern principles and practices of preventive medicine and education. Through a knowledge of such defects and by educational and practical medical measures we may then in these young workers discover seeds already planted for tuberculosis, heart disease and other maladies or uncover a soil waiting and ripe for future seeds, and then, like careful and expert gardeners, destroy the seeds or improve and alter the soil that the later scourges will fail to grow."¹

We seem to be failing as the type of "gardeners" Dr. Meyers outlines above.

"A progressive educator is one who is dissatisfied with the aims, contents, and methods of education as they were and are and is creatively active in devising a better ed-

1. Opp. cit. 1, p. 72, Jerome Meyers, p.630

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ucation and in putting it into effect. Progressives are those who want to get somewhere and are on their way."¹

"May we be progressive educators in the matter of health, education and health examinations."²

School Nurses in the Senior High School. The next table is very interesting and enlightening.

Table No.IV.

Number of Hours per week given to School by Nurse.

	Group 1A	Group 1B	Group II	Group III
None	4	3	9	4
Blank	2	9	17	26
Matron	-	4	-	-
1/2 time	-	-	2	1
1/3 time	-	-	-	1
Full time	-	4	1	1
1-5 Hours	2	8	25	26
10 Hours	1	4	6	11
15 "	-	1	1	1
20 "	-	0	3	1
25 "	-	2	0	-
30 "	-	5	1	-
35 "	-	2	-	-
On call	-	-	-	3

1. Conclusion reached by a panel led by Stuart A. Curtis and reported in the periodical *Educative Method*, Vol.XII No. 9 June 1933. p. 544.

2. *Opp. cit.* 1, p. 72, Jerome Meyers, p. 631.

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School Nurses in the Senior High School. The next table

is very interesting and enlightening.

Table No. IV.

Number of Hours per week given to School by Nurses.

	Group IA	Group IB	Group II	Group III
None	4	3	9	4
Blank	3	9	IV	28
Maxon	-	4	-	-
1 1/2 time	-	-	2	1
1 3/4 time	-	-	-	1
Full time	-	4	1	1
1-2 Hours	2	8	25	28
10 Hours	1	4	6	11
15 "	-	1	1	1
20 "	-	0	3	1
25 "	-	2	0	-
30 "	-	5	1	-
35 "	-	2	-	-
On call	-	-	-	3

1. Conclusion reached by a panel led by Stuart A. Curtis and reported in the periodical Educative Methods, Vol. XII No. 9 June 1933. p. 244.

2. Opp. cit. I, p. 72, Jerome Meyers, p. 631.

Twenty cities and towns have no nurse whatever and only 6 places have full time nurses. Four places designate a matron as doing the work of the nurse and three places have a nurse "on call." The time of from one to five hours seems to be the most frequent with sixty-one places in this group. Next to the one to five hour group comes the group that did not even make a statement about the nurse and in this group we find fifty-four places.

In a few of our large cities such as Newton, where the nurse is the Health Counsellor¹ in the high school, she is an important figure. In the majority of the high schools, however, she is hardly noticeable. Unless the school nurse is assigned to the high school for full time work, she feels (and rightly so) that the younger boys and girls need more of her time. Therefore, she does not give any more time to the high school than is actually required of her by the high school principal. Usually he requires her services very infrequently if at all.

On the other hand many of the school nurses already in service do not understand the adolescent boys and girls and could not be of much value if they had more time to give to this school.

1. Simon, Charlotte M.R.N. - The Health Counsellor in the High School, The Public Health Nurse - Vol. XXII No. 9, p.468.

1. Ireland, Helen G.M.D. - The Nurse in the High School - The Public Health Nurse Vol. XXII No. 9, Sept. 1930 - p. 468.

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"The nurse in the high school must understand and be sympathetic toward the adolescent boys and girls. She must be the sort who makes friends easily and wins confidence quickly. Having that, she must be able to analyze accurately all that she sees and hears, and she must respect the rights of those who confide in her. She must also be able to mix confidently with and speak the language of the high school faculty. To no small extent will her success depend upon this attribute.

She should be herself a high school graduate as well as a graduate, registered nurse. Preferably she should have had some graduate work of college grade in education and health education."¹

High school students would realize that the nurse just described had a prominent and important role in their school. They would have confidence in her and respect what she advocates. On the other hand a matron (as was designated by four places in Group 1A) may have a definite place in the program of some of our high schools. She cannot take the place of the school nurse, however. Neither can she be expected to organize any kind of a health education program. She usually has very little education and many times starts her work in the high school as a janitress. She should be

1. Ireland, Allen G.M.D. - The Nurse in the High School - The Public Health Nurse Vol. XXII No. 9, Sept. 1930 - p. 465.

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considered a matron, and not be expected to perform the duties of a school nurse. Because she does some of the first aid work and is in charge of the girls' rest room, it is evident that some of our school authorities feel that she is doing the work of a school nurse and that therefore a nurse in the building would be superfluous. Such school administrators are not looking very far into the future.

For years we have heard the cry "the pre-school age is the neglected age" - and the cry has brought results. Today the cry is "the high school age is the neglected age" - and this cry, too, is being answered in many ways.

Reports of accomplishment from high schools where the school nurse has had a free hand in developing her work are most encouraging. They bear out the contention that a prominent and important role awaits the nurse who is the "right" person for a high school position.

The nurse who knows the type or plan of procedure in the secondary school, what courses are making a contribution to health, who is closely allied to the dreams of boys and girls and who makes her own distinct contribution to the high school is definitely coming into the high school to stay.

Table No.V

	<u>Does the Nurse Teach Any Classes?</u>		
	<u>Yes</u>	<u>No</u>	<u>Blank</u>
Group 1A	1	8	0
Group 1B	8	27	7
Group II	7	57	1
Group III	9	64	2

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Table No. V

	Does the Nurse Teach Any Classes?	
	Yes	No
Group IA	1	8
Group IB	3	27
Group II	7	27
Group III	2	24
		Black
		0
		7
		1
		2

The nurse gives courses in home nursing, child care, first aid or hygiene. Usually these courses are given in the ninth grade. Many of the places answering "yes" to this question may be four year high schools. In some of the other places these courses would be given in the junior high school. It is unusual for the nurse to do any classroom teaching. In 166 places or 87% answered "no" to this question or left the space blank. Only 25 places or 13% state that the nurse does teach some type of health course.

Since the appointment of the first school nurse, about thirty years ago, school nurses have been recruited in large numbers for school health service in all parts of the United States, until there are at the present time approximately 7500 nurses thus engaged. Not all of these nurses have had, in the course of their education, preparation which would best fit them for the positions for which they have been in such demand. Some of them can teach in the high school and some of them must have considerable general and special training before this is possible. Whether or not the nurse should teach health courses in the senior high school depends upon the local situation, her training and ability, and her initiative and resourcefulness.

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Table No. VI.

Physical Education Classes.				
	Group 1A	Group 1B	Group II	Group III
None	1	2	15	15
Blank	2	5	7	15
1 Per	-	6	5	8
2 Per	5	27	28	17
3 Per	1	1	4	10
4 Per or over	0	1	5	10
Girls 1 Per	-	-	1	-

Sixty-two of the places answering the questionnaire or 32%, indicate that there is no physical education program in the high school. 10% have physical education activities one period a week, 40% have two periods per week, 8% have three periods a week, and 8% have four periods or more. The number of places where physical education is required and the number of places where it is only an elective subject cannot be determined from this table. I am inclined to believe that in many of these places this work is on an elective basis, and the emphasis is placed on the athletic program with a winning football, baseball or basket ball team the only objective. In spite of the fact that our leaders in physical education, for the past ten years, have been advocating physical activities for all, the goal for which most of our high schools strive with all their might and

Table No. VI.

Physical Education Classes.

	Group IA	Group IB	Group II	Group III
None	1	2	12	12
Blank	2	2	7	12
1 Per	-	6	3	8
2 Per	2	27	22	17
3 Per	1	1	4	10
4 Per or over	0	1	2	10
Girls 1 Per	-	-	1	-

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main is a winning varsity team. In this type of program only a few of the students participate. These activities in which the few participate may even be a detriment to the health of these students rather than a benefit.

"Good Health is accompanied with an even temper, a poise, and a consideration for others that makes human association a pleasure; while lack of health is a source of family and social discomfort. Therefore, no school system is complete without a systematic course of physical education nor is any course complete without health as a fundamental element of it."

"Many men are unable to stand the strain of life because they have never learned how to play, and it is impossible for them to become expert in later years."¹

Until many of our high school principals become more interested in the program of physical education and as long as varsity teams consume so much of our time, we can never hope to have health as a fundamental element of this program, nor can we hope to teach the majority of the boys and girls to play. There have been many speeches and much written about physical education and the physical, mental, and emotional benefits contributed to the individual partaking of the same. However, we are still worshipping at the shrine of the "winning team" and neglecting the rest of the student body; or we are putting the students through

1. Johnson and Others - The Modern High School Chap. XVII
by James Naismith pp.293-96

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a course of exercises which are distasteful to them and therefore of no benefit.

"The activities of the physical education program should be selected, organized and administered in such a manner that it will be hygienic from a mental, physical and emotional point of view----- The teacher of physical education must be prepared to appreciate all educational objectives and to become an integral part of the instructing staff."¹

Slowly the physical education programs are developing into worthwhile adventures in education. In our large cities well trained teachers, who organize their program so that they will be "hygienic from a mental, physical and emotional point of view", are an integral part of the school program. We still hope that many more of our educators will give all of their students an opportunity to engage in a large number of activities through their physical education programs.

Hygiene Courses. Although our state laws specifically state that the schools shall give instruction and training in physiology and hygiene, there are a number of schools that fail to live up to this requirement. One phase of the school health program is health instruction. The num-

1. Wood, Thomas D. Chairman - The School Health Program - Report of the Committee on the School Child - The White House Conference on Child Health & Protection, The Century Co. N. Y. p. 218.

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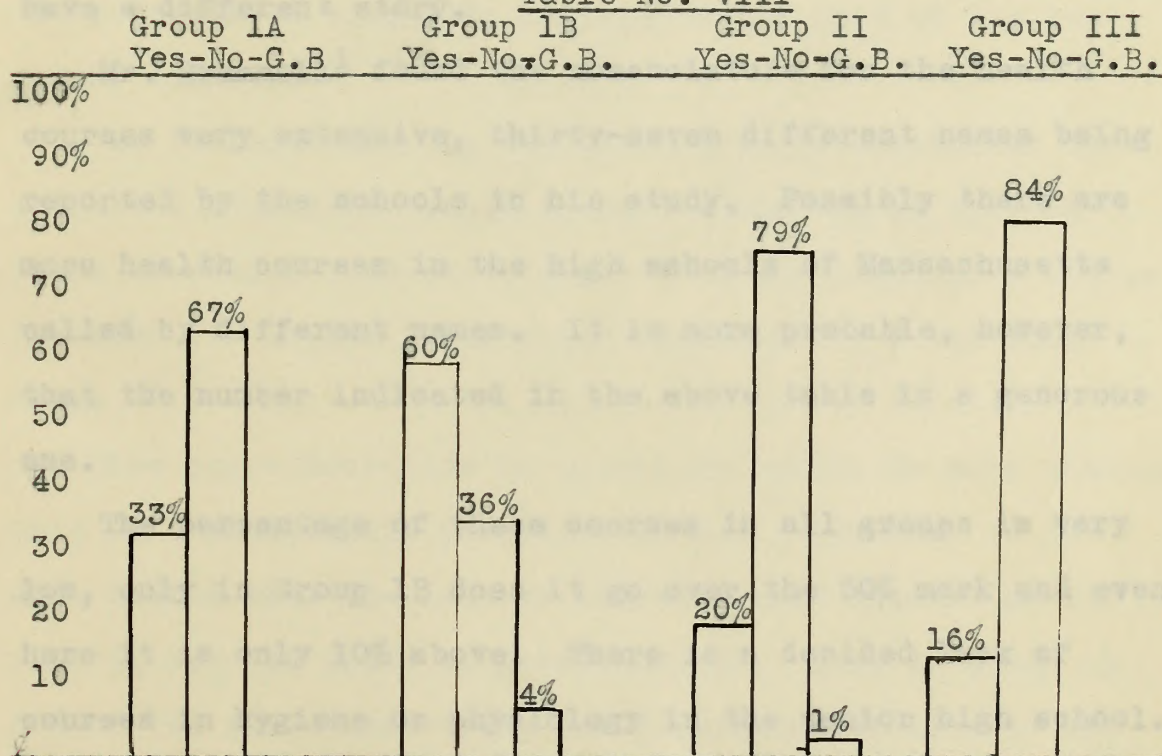
ber of places having hygiene courses and numerous items about these courses have been called for.

Table No. VII

Is there a Course in Hygiene?

	<u>Yes</u>	<u>No</u>	<u>Blank</u>	<u>Girls</u>
Group 1A	3	6	0	0
Group 1B	25	15	0	2
Group II	13	51	0	0
Group III	12	63	0	0

Table No. VIII



Only 27% of the places answering the questionnaire have a course in hygiene for all the students, 2% having a course for either boys or girls, but not for both and 71% have no course in hygiene. It is evident that school administrators

per of places having hygiene courses and numerous items about these courses have been called for.

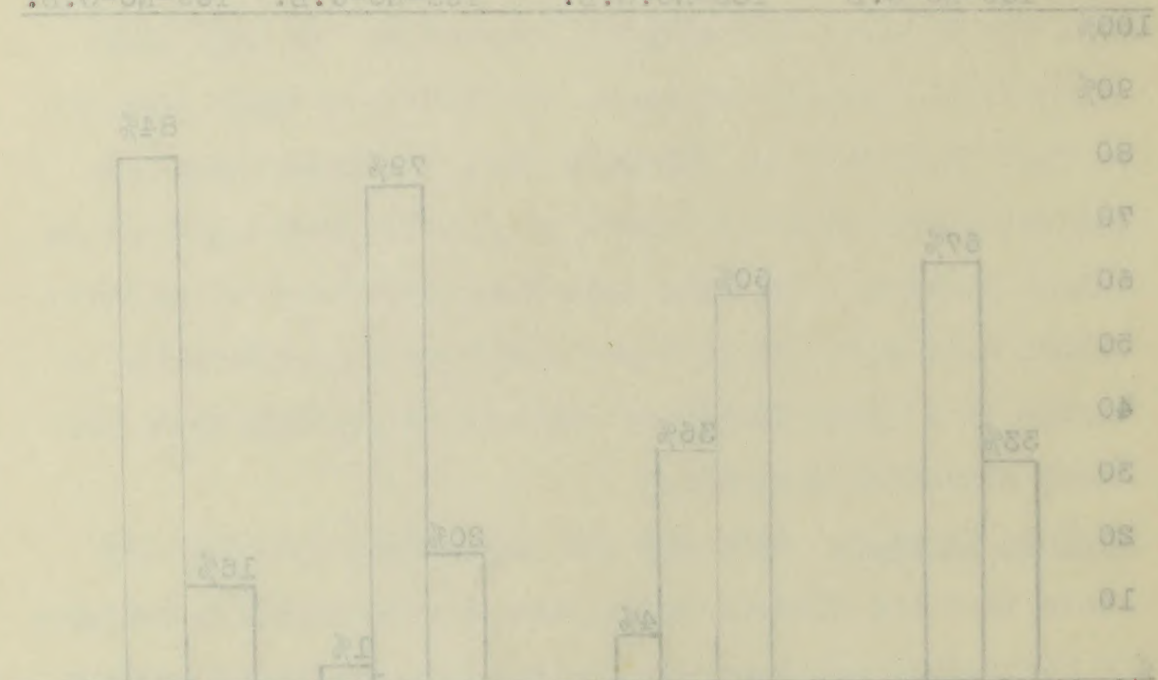
Table No. VII

Is there a Course in Hygiene?

Group	Yes	No	Blank	Girls
Group IA	3	8	0	0
Group IB	25	15	0	2
Group II	18	51	0	0
Group III	12	83	0	0

Table No. VIII

Group IA Yes-No-G.B. Group IB Yes-No-G.B. Group II Yes-No-G.B. Group III Yes-No-G.B.



Only 37% of the places answering the questionnaire have a course in hygiene for all the students, 25 having a course for either boys or girls, but not for both and 71% have no course in hygiene. It is evident that school administrators

apparently exercise considerable freedom in obeying the law which designates that they shall have a course in hygiene and physiology.

More has been done in the way of developing definite courses in hygiene in the large schools than in the small schools, but even in this group there seems to be a great lack in this particular field.

Perhaps if the word health had either been added to this question or substituted for the word hygiene we would have a different story.

Mr. Brammell¹ found the nomenclature for the health courses very extensive, thirty-seven different names being reported by the schools in his study. Possibly there are more health courses in the high schools of Massachusetts called by different names. It is more probable, however, that the number indicated in the above table is a generous one.

The percentage of these courses in all groups is very low, only in Group 1B does it go over the 50% mark and even here it is only 10% above. There is a decided lack of courses in hygiene or physiology in the senior high school. "The secondary school student is increasingly taking the responsibility for the care of his own body, for the correction of his defects and for the safeguarding of himself and others against diseases."² If for no other reason

1. Opp. cit. Roy P. Brammell, p. 16 -- p.35

2. Opp. cit. Thomas D. Wood, p. 81 -- p.113

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than this the student in the secondary school should have actual scientific knowledge on which to base his everyday living so that he will be safeguarding himself and others against disease. " We cannot force correction of defects or more hygienic standard of living on children, parents or teachers. The positive constructive force in a health program lies in the health instruction."¹

Health protection and instruction in hygiene and physiology lag far behind similar work in the elementary schools. "This indicates a serious failure on the part of the secondary schools."²

"In Pennsylvania the high school to be accredited must present a course in health education concerning all the years of study. The state department has prepared a course of study for health instruction organized on a six year basis."³

More experimentation is necessary before we know whether this is a practicable procedure or not. However, it is much better than the lack of courses which seem to be the rule in our own state of Massachusetts. Even in Group 1B 36% of the places answering the questionnaire have no hygiene courses in the high school and in the other groups

1. Opp. cit. Thomas D. Wood, p. 81 -- p. 168

2. Opp. cit. Thomas D. Wood, p. 81 -- p. 166

3. Bulletin 1930 - No.22 - U. S. Dept. of the Interior Office of Ed. Bulletin p.24

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1. Gp. cit. Thomas D. Wood, p. 81 -- p. 188

2. Gp. cit. Thomas D. Wood, p. 81 -- p. 188

3. Bulletin 1930 - No. 22 - U. S. Dept. of the Interior Office of Ed. Bulletin p. 24

this percentage soars to the high figure of 84% in Group III - not a very good showing for the state supposedly having more health education work than any other state in the union.

Year in which Course is Given. Health education in the senior high school is in a large degree an administrative problem, as direct instruction here depends in a large measure upon what has been taught in the lower grades. As long as it is new in material or in approach, or both, the year in which it is given depends on the particular school system it is given in.

Table No. IX.

	<u>Given in What Year?</u>			
	Group 1A	Group 1B	Group II	Group III
Freshman	0	15	2	4
Sophomore	2	4	8	5
Junior	1	5	1	1
Senior	0	5	5	0
All	0	3	3	0
Girls Jr.	-	-	-	1
Boys Jr.	-	-	-	1

Here in Massachusetts Group 1B seems to favor the Freshman year in which to give the hygiene course while Groups 1A, II, and III make the Sophomore year their choice.

Six places out of the entire group give a course in hygiene in each year of the senior high school. The feasi-

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Table No. IX.

Given in What Year?

	Group IA	Group IB	Group II	Group III
Freshman	0	15	3	4
Sophomore	3	4	8	5
Junior	1	5	1	1
Senior	0	5	5	0
All	0	3	3	0
Girls Jr.	-	-	-	1
Boys Jr.	-	-	-	1

Here in Massachusetts Group IB seems to favor the freshman year in which to give the hygiene course while Groups IA, II, and III make the sophomore year their choice. Six places out of the entire group give a course in hygiene in each year of the senior high school. The least-

bility of this procedure is questioned by some of the health authorities, if the pupils have been exposed to a thorough health education program in the lower grades. Senior high school health work is in a rapid state of change and progress. This is a wholesome procedure as we are just beginning experiments in health education for this age group.

Courses Required or Elective.

Table No. X

Hygiene Course Elective or Required?

		<u>Elective</u>	<u>Required</u>
Group 1A	3	0	
Group 1B	3	24	
Group II	8	6	
Group III	4	8	

Evidently there are a number of places where the hygiene courses are required of some of the students and elected by others. This may be a sound procedure, as one of our ablest health education leaders feels that this course should be required of all the pupils except those in the college course.

This table shows that in thirty-eight of our towns and cities the hygiene course is a required subject and in only eighteen places it is an elective subject. As health education in the senior high school is in a large measure an

ability of this procedure is questioned by some of the health authorities, if the pupils have been exposed to a thorough health education program in the lower grades. Senior high school health work is in a rapid state of change and progress. This is a wholesome procedure as we are just beginning experiments in health education for this age group.

Courses Required or Elective.

Table No. X

Hygiene Courses Effective or Required?

	<u>Effective</u>	<u>Required</u>
Group IA	3	0
Group IB	3	24
Group II	8	8
Group III	4	8

Evidently there are a number of places where the hygiene courses are required of some of the students and elected by others. This may be a sound procedure, as one of our best health education leaders feels that this course should be required of all the pupils except those in the college course.

This table shows that in thirty-eight of our towns and cities the hygiene course is a required subject and in only eighteen places it is an elective subject. As health education in the senior high school is in a large measure an

administrative problem one would have to be quite familiar with the individual school programs to judge whether the hygiene course should be required or elected.

By Whom Courses are Given. It is significant to know who gives the course in health education, or hygiene, as it is designated in this questionnaire. This can best be shown by the next table.

Table No. XI

	Taught by Whom?				To- tal
	Group 1A	Group 1B	Group II	Group III	
Nurse	1	5	1	3	10
Science Teacher	0	9	0	2	11
Biology Teacher	0	2	1	1	4
Phy. Ed. Teacher	0	2	7	2	11
Prinicipal	0	0	0	1	1
Home Ec. Teacher	0	2	0	0	2
Health Teacher	0	1	0	0	1
Home Room Teacher	0	1	0	0	1
Blank	2	9	5	3	19

Clearly, the largest number of principals answering this questionnaire left the space blank when it came to the person who teaches the hygiene course in the high school. This can only mean that the high school principals either do not know who teaches the hygiene course, or that this course is in outline form in the school office, or that it

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Table No. XI

Taught by Whom?

	Group IA	Group IB	Group II	Group III	To- tal
Nurse	1	2	1	2	10
Science Teacher	0	2	0	2	11
Biology Teacher	0	2	1	1	4
Phy. Ed. Teacher	0	2	7	2	11
Principal	2	0	0	1	1
Home Ec. Teacher	0	2	0	0	2
Health Teacher	0	1	0	0	1
Home Room Teacher	0	1	0	0	1
Blank	2	2	2	2	12

Clearly, the largest number of principals answering this questionnaire left the space blank when it came to the person who teaches the hygiene course in the high school. This can only mean that the high school principals either do not know who teaches the hygiene course, or that this course is in outline form in the school office, or that it

exists only in the minds of these same principals.

The physical education teachers and the science teachers tie for first place in the responsibility for teaching hygiene in our senior high schools, with the nurse a close second. In the smaller towns and cities the physical education teachers give this work more commonly than in the larger towns and cities, where we find the science teachers are more often responsible.. The nurse is quite frequently the teacher of hygiene in all groups. The biology teacher comes next, with four places to his credit. In only two places is the home economics teacher responsible for this work. The health teacher (the one person who has had special training for this particular piece of work) is the hygiene teacher in only one place, as is the principal and the home room teacher.

Health should be taught in a manner as fundamental and as thorough as Latin or Biology. It should be taught by an instructor not only well grounded in the subject matter, but able to present the material so effectively that the children are convinced of its importance and will put it into practice in their everyday living.

Topics Included in the Course

- | | |
|---------------------|----------------------|
| a. Personal Hygiene | c. Community Hygiene |
| b. Anatomy | d. Physiology |
| e. Home Nursing | |

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Topics Included in the Course

- a. Personal Hygiene
- b. Anatomy
- c. Community Hygiene
- d. Physiology
- e. Home Nursing

Table No. XIIWhat Topics Included in the Course?

	a	b	<u>Yes</u> c	d	e
Group 1A	2	2	2	3	3
Group 1B	28	17	25	22	11
Group II	13	10	13	14	5
Group III	<u>12</u>	<u>10</u>	<u>10</u>	<u>12</u>	<u>6</u>
	55	39	50	51	25
			<u>No</u>		
Group 1A	1	1	1	0	0
Group 1B	0	5	0	2	10
Group II	1	3	1	0	8
Group III	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>3</u>
	2	10	3	2	21
			<u>Blank</u>		
Group 1A	0	0	0	0	0
Group 1B	0	6	3	4	7
Group II	0	1	0	0	1
Group III	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>3</u>
	0	8	4	4	11

Table No. XII presents a picture that is hard to understand. It is clear, however, that some principals do not know just what this course does include. Three places state that neither personal hygiene nor community hygiene are included in this course, which they call hygiene. However, the majority of these courses include all the topics mentioned in the questionnaire. It would seem that many of the courses must be a review of courses previously taken by the students. No one course in hygiene could include as many topics as indicated in this table unless this were the case.

Table No. XII

What Topics Included in the Course?

	Yes				
	a	b	c	d	
Group IA	3	3	3	3	Group IA
Group IB	35	35	35	17	Group IB
Group II	13	13	13	10	Group II
Group III	13	13	13	10	Group III
	54	54	54	39	
No					
Group IA	1	1	1	1	Group IA
Group IB	0	0	0	0	Group IB
Group II	1	1	1	0	Group II
Group III	0	0	1	0	Group III
	2	2	3	1	
Blank					
Group IA	0	0	0	0	Group IA
Group IB	0	0	0	0	Group IB
Group II	0	0	0	0	Group II
Group III	0	0	1	0	Group III
	0	0	1	0	

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Personal hygiene is included in this study more frequently than any other topic except in Group 1A where physiology and home nursing predominate. In Group 1B home nursing is left out of this course in ten places and anatomy in five places. In Groups II and III home nursing also seems to be the neglected subject with eleven places stating that it is not an included topic. In this state the home nursing program is usually given in the 9th grade and in many places now this grade is in the junior high school. However, this particular answer does not deal with home nursing as a course, but deals with topics included in a course of hygiene.

It would be interesting to compare the data, if it were given by the teacher of the hygiene course rather than by the principal of the building, but this we cannot do as we do not have these figures.

Health Instruction in Connection With Other Courses. There are some courses in the high school which naturally lend themselves to the teaching of health. In the past many health education experts have felt that these courses in themselves gave sufficient health knowledge to the students, (provided they conscientiously and deliberately arranged their aims from the health aspect). However, no matter how much health service there is or how much direct health teaching is done, the correlation and definite use of cer-

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tain health topics, in these other courses does strengthen the health education program. This does not mean that the health education course should be omitted.

Table No. XIII

Is Definite Health Teaching Done in Connection With?

- | | |
|--------------------|-----------------|
| a. General Science | c. Physical Ed. |
| b. Civics | d. Biology |
| e. Home Economics | |

Yes

	a.	b	c	d	e
Group 1A	6	7	6	8	5
Group 1B	19	17	29	29	24
Group II	40	37	41	51	41
Group III	66	44	38	63	36
	131	105	114	151	106

No

	a	b	c	d	e
Group 1A	0	0	0	0	0
Group 1B	10	13	8	5	7
Group II	11	15	9	5	8
Group III	4	11	15	8	12
	25	39	32	18	27

Blank

	a	b	c	d	e
Group 1A	3	2	3	1	4
Group 1B	13	12	5	8	11
Group II	14	13	15	9	16
Group III	5	20	22	4	27
	35	47	45	22	58

As has been pointed out we would expect definite health instruction to be included in a variety of courses other

tain health topics, in these other courses does strengthen the health education program. This does not mean that the health education course should be omitted.

Table No. XIII

Is Definite Health Teaching Done in Connection With?

a. General Science
b. Civics
c. Home Economics
d. Biology
e. Physical Ed.

Yes

	a.	b.	c.	d.	e.
Group IA	8	7	8	8	2
Group IB	19	17	29	22	24
Group II	40	37	41	31	41
Group III	66	44	38	62	38
Total	131	103	114	121	105

No

	a.	b.	c.	d.	e.
Group IA	0	0	0	0	0
Group IB	10	13	5	3	7
Group II	11	13	9	2	8
Group III	4	11	12	8	12
Total	25	36	26	13	27

Blank

	a.	b.	c.	d.	e.
Group IA	3	3	3	1	4
Group IB	13	13	5	8	11
Group II	14	13	13	9	16
Group III	5	20	22	4	27
Total	35	49	43	22	58

As has been pointed out we would expect definite health instruction to be included in a variety of courses other

than the health courses. This proves to be true. Five different courses were designated as amenable to this teaching, and many places (according to the principal) avail themselves of this opportunity.

In all the groups the frequencies for biology and general science exceed those for physical education, civics, and home economics. In all these courses there is a high frequency of correlation with health education.

In Group 1A no one course seems to predominate. Biology leads in this group with civics a close second and the other three dropping behind these two, by one or two places only. In Group 1B physical education and biology are equal, with home economics a close third, and general science and civics dropping down quite a bit. Group II has biology leading, by quite a margin, with physical education and home economics coming next, and then general science and last civics. In Group III, general science leads, with biology a close second, and civics coming third. Physical education and home economics dropped to the lowest places.

The frequencies for general science and biology in the smaller schools exceed the frequencies for physical education. In the larger schools the frequencies for biology and physical education exceed the frequencies for general science. Biology includes health education in its

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program more than any other subject in this state. In a number of places the answer to this question was "no" or was left blank. After visiting some of these schools one believes that the principals who answered "no" to this question, or left it blank, are probably more accurate than some of the others. Quite frequently the outline for these courses includes a certain amount of health teaching, but the actual health teaching accomplished is very little or none at all. Physical activity, however healthful it may be, cannot be considered as health instruction. Yet many of these principals sincerely believe that because they have a physical activities program, or an athletic schedule, under the guise of health, that they are fulfilling their obligations as far as health instruction is concerned. Many times these instructors of games and athletics have had no training in science or health education whatever as they are employed because of their accomplishments in football, baseball or what not, when they were in high school or college.

We should not think of allowing a teacher to teach language, or history, or mathematics without an adequate training for such teaching; but we have been known to allow a lay individual, with no training whatever in such work, to be the director of health education for an entire school system.

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"Health education is a fundamental necessity for the child if we are to enrich the social heritage by making growth more rapid, life more vigorous and death more remote."¹

This is a challenge we cannot fulfill unless we have an enlightened, intelligent, adequately trained personnel operating under the supervision of sympathetic, determined, far seeing school administrators.

Health Councils in the High School. Health councils in the high schools are of very recent origin and are still few in number. They are still in the experimental stage but it is believed that this is an adequate way of handling some of the senior high school health problems.

Table No. XIV

Is There a Student Health Council?

	<u>Yes</u>	<u>No</u>	<u>Blank</u>
Group 1A	1	8	0
Group 1B	1	39	2
Group II	4	59	2
Group III	2	71	2

Faculty Health Council?

	<u>Yes</u>	<u>No</u>	<u>Blank</u>
Group 1A	0	9	0
Group 1B	3	37	2
Group II	3	59	3
Group III	5	68	2

In Massachusetts we apparently have a good start in this phase of health work with eight student health councils

1. The Massachusetts Teacher - vol.XIII No. 2 Nov.1932-p.24

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Health education is still a growing subject and although we have made a decided start in the elementary schools, the high schools lag far behind.

"There are several aspects of secondary school life which for some students become health liabilities. Students undertake work beyond their capacity and are injured by worry and baffling failure. Athletics, involving competition, may constitute a menace to health. Social pressure may constitute a real danger for some students. Socialized class work and extra curricular activities, added to heavy home-study load, church, family and social activities, and part time employment, create a burden too great for many students."¹

Health should be an integral part of every secondary school program. This is a responsibility of the secondary school of today and also the secondary school of the future. No one who is at all familiar with the adolescent and his

1. Opp. cit. Thomas D. Wood, p. 81 -- p.113.

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Health should be an integral part of every secondary school program. This is a responsibility of the secondary school of today and also the secondary school of the future. No one who is at all familiar with the adolescent and his

problems will doubt that the health equilibrium during this period, from both the psychological and physical standpoint, is rather unstable. Growth and development at this period are very perplexing. The significance of this period is probably least understood of all periods of growth, and demands concentration on special studies of many kinds. It is important that some one individual be made responsible for bringing about an integrated health education program in the high school. This need is being met in some places by a health counselor or a health coördinator.

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Chapter VI.

A HEALTH PROGRAM FOR THE SENIOR HIGH SCHOOL

The fundamental objectives and the educational principles underlying health education remain the same for the high school as for the lower grades. There are, however, differences in emphasis and procedures because of the difference in the pupil age level and the organization of the school program.

The high school health program should not be considered without reference to what has gone before. Habits and health behaviors are of primary importance but the high school teacher gives more attention to the subject itself and less time to the individual student.

The health program is now in the hands of many teachers. The integration of health subject matter must be definitely arranged among the teachers of the different departments, and the health services must be interrelated.

What a High School Health Program should include. A program of health education in the high school should include protection, correction, and prevention. Under protection the services of the doctors, dentists, nurses and other specialists are involved. The high school student should be protected not only from the acute and chronic communicable diseases, but also from the evils of poorly planned,

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poorly constructed and poorly administered school buildings.

Protection: This program of protection includes a healthful school environment, the hygienic arrangement of the school program, the health examination, which should come annually, the follow up of this examination, the correction of defects, certain phases of the physical education program, the special classes, such as open air classes, speech correction, etc., and the school clinics.

In this part of the program the dentist, the doctor, the school nurse, the principal, the teachers and the janitors all play important parts.

In every high school health practices experienced by the students outside of the actual health teaching, inevitably influence the present or future behavior of the students in the right or wrong way. "How often the failure to provide suitable handwashing facilities, sanitary conditions in the toilet rooms, the sanitary distribution or the maintenance of satisfactory cleanliness convinces the pupil that the school does not really believe the things it teaches!"¹

It is the duty of school administrators to maintain the standards of sanitation that we believe are desirable.

The school doctor should give an adequate physical ex-

1. Turner, C.E. M.A.D.P.H - When Can Health Be Taught - Am. Journal of Public Health vol.XXII No.9 - Sept. 1932

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amination as this may be the most important piece of health instruction the pupil receives during the whole year. He should examine students sent to him by the teachers and nurses and should see pupils before they return to school after a communicable disease. He should be the sanitary inspector of the building.

The nurse should assist the doctor at the physical examination, follow-up defects found at this time with the correction of these same defects as her objective. She should have conferences with individual pupils, interviews with pupils returning to school after an illness, plan periods of rest for pupils with heart trouble or under special medical care, and consultations with parents at school and at the time of the home visit. The emergency room should be under her direction and she should render first aid where necessary.

The nurse also has a unique opportunity and responsibility in child guidance and mental hygiene. She should therefore have an understanding and appreciation of the psychology of adolescence and should plan her activities with this in mind.

"Studies concerning absenteeism in the secondary schools have revealed sickness as a major cause of absence. Diseases of the upper respiratory tract and gastro-intestinal diseases appear to be the most important ones among

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the high school population. The acute communicable diseases other than the common colds and influenza do not seem to play a large part in absenteeism. It has been found that when the secondary school employs a capable nurse, who can check up on absences and follow up cases to the home, the number of days of absence has been reduced considerably. This gives the nurse an excellent opportunity not only to conduct classes in personal hygiene in the school, but also to use the occasion of her home visits and her contacts with the teachers to enforce the lessons of hygiene and sanitation."¹

There should be a school dentist or dental hygienist to examine the teeth of the high school pupils and these same pupils should have access to the dental clinic. In many places the children of the elementary schools are taken care of by the dental clinic, but the high school students are not included in this program. Medical supervision is recognized as an essential part of a school program. If the obligation to safeguard the children, as far as health is concerned, is met the dental program is a necessary part of the health program.

Direct and Indirect Health Teaching. What should be done in direct health teaching depends a great deal on other

1. Editorial - Am. Journal of Public Health Vol. XXI No. 12, Dec. 1931 p. 1394.

the high school population. The acute communicable diseases other than the common colds and influenza do not seem to play a large part in absenteeism. It has been found that when the secondary school employs a capable nurse, who can check up on absences and follow up cases to the home, the number of days of absence has been reduced considerably. This gives the nurse an excellent opportunity not only to conduct classes in personal hygiene in the school, but also to use the occasion of her home visits and her contacts with the teachers to enforce the lessons of hygiene and sanitation."

There should be a school dentist or dental hygienist to examine the teeth of the high school pupils and these same pupils should have access to the dental clinic. In many places the children of the elementary schools are taken care of by the dental clinic, but the high school students are not included in this program. Medical supervision is recognized as an essential part of a school program. If the obligation to safeguard the children, as far as health is concerned, is met the dental program is a necessary part of the health program.

Direct and Indirect Health Teaching. What should be done in direct health teaching depends a great deal on other

factors. It depends on the type and amount of health teaching which has gone on in the elementary and junior high schools. Dr. C. E. Turner feels that possibly a problem course in health, for seniors, not going to college, may be all that is needed in the high school.¹ This course however, naturally depends on the community where it is taught and the particular needs of the high school students. In the state of Pennsylvania the state program designates that a course in health be taught every year both in the junior and senior high schools. If the child is exposed to an adequate program of health education throughout the elementary grades and the junior high school this may not be a feasible procedure. We need to make sure that this subject does not become stale or distasteful to the students. The answer to this problem will be found in extensive experimentation. Many schools are already trying such experiments in the senior high school.

"Many subjects in high school can profitably present important units of instruction bearing upon the subject of health. In the high school the hygiene teacher, and in fact all teachers who touch on health at all should know what health subject matter is being taught in every other course.

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1. Opp. cit. p. 5, C.E.Turner - p. 232

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taught in connection with only one presentation, and the approach to fundamental health facts from different angles is fundamentally helpful."¹

This indirect health teaching is fundamentally important. It shows the student that health is not a "fad" or a "fancy" but is a part of life.

The physical education program provides an unusual opportunity to contribute the maintenance of health behavior, constructively and indirectly.

There should be a clear and cooperative understanding between the physical education on the one hand and the health education program, with all its branches of the whole school program, on the other hand.

The home economics course provides valuable instruction for girls in the high school. Such topics as the preservation of foods, planning of meals, cleanliness of foods, sanitary conditions of stores and markets, selection of foods to make meals attractive, selection of clothes and many others lending themselves particularly to the teaching of health.

General Science may contribute through such topics as air and its relation to health, how we keep our drinking water safe, and many problems in sanitation and its relation to disease.

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The Social sciences are very amenable also to the introduction of units of health teaching. Such topics as, the interdependence of peoples, the effects of changing economics on health, occupation and health, social agencies and their relation to health will certainly help in emphasizing this subject.

Other subjects such as Manual arts, Mathematics and English can be used to introduce units of work relating to health such as health material as data for graphs in Mathematics and clean hands and materials in Manual arts and health topics for written themes in English.

The natural sciences, (biology, physics, chemistry) and the social sciences, especially history, offer unusual opportunity to give instruction with health principles as an underlying factor. These courses should develop in the students a greater appreciation of health opportunities. The Health Counselor. As the health program is necessarily an administrative problem in the senior high school it is important that there be some one who can help in properly integrating the health program. The health counselor or health coordinator is the one who usually assists the principal in developing an adequate health program.

The type of man or woman who could ably fulfill this position and the duties this person should assume are ably stated as follows:

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"Traits desirable in men and women holding the position of health counselor in the high school.

1. Good scientific training in personal hygiene, communicable disease, and school hygiene.
2. Thorough mastery of modern teaching technique. This means practice under direction.
3. Familiarity with the organization, aims, and limitations of a modern high school.
4. Intelligent appreciation of the aims, ideals, and practices of the best type of physical training and home economics.
5. Training in health publicity.
6. Training in the care of emergencies, in simple nursing procedures, in the detection of the departure from normal health in students and teachers; ability to interpret technical records to advisors, teachers and parents; ability to work with school physicians, and others; and ability to keep and use records intelligently.
7. Sound psychological training, including a knowledge of intelligence tests and of psychiatry as applied to behavior problems.

Duties of health counselor.

1. To understand and be able to interpret to the teacher and administrator the physical, medical, dental and psychological examinations. (In every school studied where there was a counselor, she was present at, and assisted in, the routine physical examination.)
2. To supervise the sanitation of the school, especially as to the air-conditioning and provisions for preventing the spread of infections.

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3. To teach personal hygiene in such a way as to improve the health of the individuals taught. Each student, in the best examples seen made his own health problem his major project. The work was carried on intensively in the first year of the students school residence.
4. To carry on personal supervision of individuals (not first year pupils) who present special health problems--about 10% of the school population. This calls for conferences with students, advisors, teachers, parents.
5. To see all students returning after absence on account of illness, study their needs, and supervise their readjustment.
6. To study attendance records and report to the principal monthly on absences due to illness, classified by courses; to recommend policies in the field.
7. To study cases of minor ailments and disabilities, as shown in physical education and rest-room records. Supervision of these students as in No. 4.
8. To prepare or supervise publicity on school health for school paper, bulletins for advisors, letters to parents, school and neighborhood posters, exhibits.
9. To give talks in this general field to classes, advisory (home-room) groups, parent-teacher groups, and faculty meetings.
10. To give counsel to teachers who apply for guidance in personal health problems.
11. To see that students needing special attention are referred to the school physician, and by him to the family physician."¹

1. Bailey, Dr. - Health Trends in Secondary Education
American Child Health Association 1927 p.13-22 pp.218-219

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With such a counselor, the home room teacher will be helped to understand that she too has a part in this program. She should certainly know the health status of her home room pupils and she should send, after the morning inspection, to the doctor or nurse, any student showing signs of coming down with a communicable disease. She should cooperate with the immunization programs and follow exactly the regulations for admittance of pupils returning after an illness.

The Health Councils. In this program of health education there should be two councils, a staff council and a student council.

The staff committee is for the purpose of insuring efficient correlation. The principal, hygiene teacher, physical education instructor, home economics teachers, nurse, physician, science teachers, and dean of girls are usually on this committee. This does not mean that other teachers who would be interested in this work should be barred. Advisors are sometimes members of this committee. This council considers the hygienic arrangement of the school program, the length of the school day, extra curricular activities, rest, relaxation, the pupil load and the type of experiences provided for the pupils.

The student council can cooperate in forwarding the health program. It can also handle the publicity in

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connection with special activities and campaigns. It can promote health clubs, keep up the bulletin boards, and have lectures and films at the school assemblies.

The lunch room should also contribute to the health education of the high school students. "Its central purpose is to serve the public-school children warm lunches, carefully prepared under sanitary conditions, and of the highest nutritive value at a minimum cost. This requires that the service should be under the direction of trained dietitians."¹

It has been found that there are many ways of making this a real health project. Attractive lunch rooms, attractive dishes, well balanced meals well served make a distinct contribution to the health program, and when instruction in selecting the same foods is given there is a real difference in the nutritional status of some of the students. Food conferences with the home economics teacher, when the nutritional status of the child warrants it, also make a distinct contribution.

Since this is the age level when the foundations for future life work are laid, the mental and physical health of these people should be carefully studied, and the educational and vocational guidance programs should be greatly influenced by this health knowledge.

1. Opp. cit. 3, p. 5 C. E. Turner - p.223.

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The program for the high school as mapped out should be elastic so as to conform to the amount of time available and to give administrators an opportunity to fit the program to the particular needs of the high school students under his jurisdiction. This program should take its cues from the realities of life facing the young men and young women as they enter real adult life in business or in the home. It is too bad that our students leaving high school have a fair knowledge of geography or mathematics but with no knowledge of the care of children or the citizen's obligation to cooperate with the community health officer. May we find that these programs are practicable and that they contribute to the health, happiness and prosperity of our young men and young women.

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Physical Education has been intermittently existent in private schools in this country since 1736 and in public schools since 1870. Physiology and hygiene, as organized studies have been going on for eighty years or more. Medical inspection and sanitation of the school plant, beginning in Paris 1833, did not find their way into the schools in the United States until 1894.

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Chapter VII.

SUMMARY OF THESIS

Accepting health as the first objective of education we ask ourselves what is being done in the three branches of this work, protection, correction and prevention, in the junior and senior highschools of Massachusetts.

We need a unified program of health education in our secondary schools that shall alike include protection, correction and prevention. We have been more concerned with disease and too little concerned with health building. We do not have an adequate health program in our secondary schools, especially the senior high school.

One reason for no better success in this work is the lack of unity in the health activities program. These activities have come into the schools one at a time and at widely separated intervals.

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Training of teachers for teaching health is a comparatively recent development, and the health of the teachers

has received consideration only in the last ten years. The relation of the health of the child to the arrangement of the school program, the length of the school day, and the length of the school year has been given consideration only within a very few years.

As a result, this group of activities - a growth rather than a development - has exhibited little correlation among the different health factors concerned.

The world war made us face the fact that there was a need for our modern program of health education. In 1920 the war draft figures showed that 70% of all men of the draft age were physically below normal. At the other end of the line we are told that 80% of our children are born perfect. This means that in this country of ours, where, if anywhere in the world, children should have a right to health, somewhere between birth and maturity are accumulating conditions which rob the youth of this nation their full heritage of health and happiness.

To bring its best results there must be a unified department of school health financed, organized and controlled by the superintendent of schools and the board of education.

The laws of Massachusetts relating to school hygiene are few in number and not very helpful in outlining a modern program of health education. They relate to the study of physiology and hygiene with instruction as to alcoholic drinks and narcotics and as to tuberculosis and its

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prevention in connection with these subjects; school physicians and school nurses; the instruction of mentally retarded children; examination of pupils; school lunches; vaccination; ventilation and sanitation; employment of children and their examination by the school physician; and to childrens' health camps.

As a result of the work of many leaders in different parts of the country the practicability of a well arranged health education program is now generally accepted.

The public school should begin its health training in the grades and it should be continued throughout the secondary schools.

As yet we have a very meagre health program in the secondary schools especially in the senior high schools. The junior high schools in general have a much better health program. This is probably because these programs were introduced when the junior high school was organized and at a time when health education was coming into prominence.

In Massachusetts according to statistics compiled by the state department of health a very small proportion of the average total school appropriation is used for school health work, the average percent being 2.24.

Most of the school physicians are on a part time basis with very small salaries ranging from \$50 to more than \$4000. There are four full time physicians with an average salary of \$4410.

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To have an integrated program of health education in the schools the personnel should be under the jurisdiction of the board of education, yet in Massachusetts over half of the school physicians in the large cities are under the board of health. The most necessary single factor in an integrated health program is generous cooperation among all the health workers. The average number of pupils per school doctor is 1600 which is much smaller than for the country as a whole.

Sixty per cent of the large cities and towns have the school children examined yearly, but this is usually a medical inspection as the average time spent per pupil by the school doctor is 5.2 minutes. In the larger cities and towns a little over half say that the physician gives a real examination and in the smaller towns this mounts to nearly three fourths. yet in only 47% of the larger places are the children partially stripped, the percentage mounting a bit higher in the smaller towns.

School Nurses. The school nurse like every other public health nurse, is an interpreter of health knowledge from scientific authorities. In many places she carries most of the responsibility for the health services and the health education of the schools. The average salary of the school nurse in Massachusetts is \$1473.19 which is considerably lower than for the country as a whole. There

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are 460 school nurses on a full-time basis and 217 on a part-time basis. In general their duties in the junior high school are to assist the physician at the time of the examination, checking physical defects and trying to bring about the correction of the same, inspection of children to prevent communicable diseases, readmittance of children to school after an illness, assists in the weighing and measuring of children, and the giving of health talks.

Eighty-eight percent of the nurses in this state have a definite program. The average number of pupils per nurse in the larger towns and cities is 2129 and in the small towns the average number is 915.

Sixty-three percent of the places answering the questionnaire require the nurse to make a written report. These reports vary from a detailed daily report to a general yearly report.

There are 340 graduate nurses and 324 registered nurses in the schools of Massachusetts. The education of these nurses varies from a nurse with a grammar school education with some hospital training to the graduate, registered nurse who is a college graduate. There seems to be no standard for school nurses, the local authorities using their own judgment as to the qualifications of the nurse.

In the places we are studying there are only twenty-four directors of health education with apparently only

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four of the same on a full-time basis. Even though this is a comparatively new position in our schools we seem to be very slow in adopting it in Massachusetts.

Fifty-six and eight tenths of the pupils in these places we are studying are already immunized against diptheria. This is a good showing as this program is quite new and is given only when the parents give their consent.

Sixty-one per cent of the places serve noon lunches at school. The person serving this lunch may be the home room teacher or a dietitian. In very few places is this lunch period made a part of the health education program.

The junior high schools all have some program of direct health teaching. In 38% of the places this subject is not on the same basis as other subjects in the school curriculum.

The health of the teacher in Massachusetts has been sadly neglected. In only eleven of the three hundred and sixteen places answering this questionnaire is there any requirement of a health certificate for the teacher. Three places state that a yearly health certificate is required. We should do well to pay more attention to this very important matter.

High Schools. In the high schools of Massachusetts we do not find so much health work done as in the junior high schools. Only 59% of the schools answering the question-

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naire have an annual physical examination of the pupils. Of course in many places this is barely an inspection and in others the examination exists only in the minds of the principals.

The nurse spends very little time in the high school. In seventy-four places which is 32%, there is no school nurse whatever. In four places a matron does the work of the school nurse. In the rest of the towns and cities the nurses' time varies from "on call" to "full-time duty" with only four of such which is 1.6% of all the places answering.

In twenty-five places the nurse is a health instructor while in one hundred and sixty-six places she does no teaching.

The physical education program varies a great deal. In sixteen percent of the towns and cities there is no program of physical education while in the others it varies from one period a week to four with the majority requiring it two periods a week.

In thirty-four per cent of the towns and cities there is a course of hygiene in the high school and it is usually given in the sophomore year. The large cities are an exception to this rule, they generally have this course in the freshman year.

This course is about evenly divided as to whether it

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is elective or required with the exception of the large cities. Here again they differ from the rest in that it is usually required by them.

The course is usually taught by either the science teacher, the physical education teacher, or the nurse. In some places it is taught by the biology teacher, the home economics teacher, the principal and the home room teacher. In one place it is taught by the special health teacher.

The topics included in this course were listed as personal hygiene, anatomy, community hygiene, physiology, and home nursing. Many principals stated that all of these topics were included in this course. A great many more stated that the course included only home nursing. This can only mean that this is a review course of all the courses which must have been given in the lower grades or that the principals do not know just what is being taught in this course. To say that all five topics are included in a course usually given only in one semester can only mean that this course is not a very vital one in the curriculum.

Definite health teaching is done in connection with general science, civics, physical education, biology and home economics. Biology takes the lead in this procedure with general science coming next. Physical education is third in this group with home economics coming next and civics the last on the list.

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Student and faculty health councils are rare in Massachusetts. Eight places have student health councils and eleven have faculty health councils. These are a very new procedure in the high schools and we shouldn't expect very many places to have adopted them.

Whether there is a health counselor or health coordinator in our high schools, the questionnaire does not ask.

A program suitable for a high school should include the health services; that is, the doctor, the nurse, the dentist, clinics such as dental, orthopedic, and others.

There should be direct health teaching which depends on what has gone before and there should be indirect health teaching in the courses suited for this purpose such as physical education, general science, biology, etc. The teachers of these different subjects should all know what is being taught in all the subjects.

Health education is in a large degree an administrative problem. This makes it imperative that a specially trained health counselor or health coordinator be a member of the staff to assist the principal in the organization of the health program.

The health education program in the high school should be made to function in the life of the individual.

"Health needs cannot be neglected during the period of secondary education without serious danger to the in-

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The health education program in the high school should be made to function in the life of the individual.

"Health needs cannot be neglected during the period of secondary education without serious danger to the in-

dividual and the race. The secondary school should therefore provide health instruction, inculcate health habits, organize an effective program of physical activities, regard health needs in planning work and play, and cooperate with home and community in safe-guarding and promoting health interests.

To carry out such a program it is necessary to arouse the public to recognize that health needs of young people are of vital importance to society, to secure teachers competent to ascertain and meet the needs of individual pupils and able to inculcate in the entire student body a love for clean sport, to furnish adequate equipment for physical activities, and to make the school building, its rooms and surroundings conform to the best standards of hygiene and sanitation."¹

The work in health education, comparatively new in occupying a place in the secondary school curriculum, has made great strides in the past few years even though these strides seem to be slow in coming.

The educators of this state and the country as a whole have both a privilege and a responsibility to assure the school children of the nation a well rounded health program including all of the essentials which have now proved their value by the test of use.

Opp. cit. 1, p.1 - Cardinal Principles of Secondary Education, p. 11.

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